Installation Manual

EXS-70

DOCO door-solutions

For your Residential and Industrial door solutions: www.doco-international.com

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1. Symbols

Danger

Attention

Additional manuals

2. General warnings

This manual has been prepared for use by qualified personnel and therefore not by trainees or “do it yourselfers”
In case of doubt about the assembly and/or maintenance, please contact DOCO International
To avoid severe personal injury, carefully read and observe all indications and warnings in this manual.

- This manual describes the assembly, use and maintenance of your residential system /door EXS70; this may be supplemented by other manuals, for instance the panel assembly manual and operator manual (if applicable.)
- This residential system has been designed in accordance with the latest European standards; however you have to check yourself whether this standard corresponds with the local national standard.
- All measurements are in millimeters unless otherwise specified.
- After installation ensure that the CE marking label has been completed and attached.
- Keep this manual in a safe place.
- Subject to technical changes, without written notice.

2 .1 Safety requirements for assembly and first use.

- This residential system may only be mounted, connected and put into operation by qualified personnel.
- Make sure that the power is switched off and remains switched off while electrical work is carried out!
- Never bridge safety devices !
- Adding or leaving out parts can affect the door operation in a negative way and therefore the safety of the installed sectional door. This is therefore strongly discouraged!
- Some parts can contain sharp edges: use protective gloves.
- All references to the door/component handing within this manual is always as viewed from inside looking out.
- Never use the sectional door in case or visual damage on the safety devices.
- When performing assembly/maintenance, always wear at least gloves and safety boots and during drilling/cutting wear safety goggles!
- Make sure that you can always perform your work in a stable environment.
- Secure the assembly/maintenance site with safety ribbon to keep others (children!) at a distance.
- Maintenance must only be performed by a qualified company and/or qualified personnel.
- Make sure there is enough light.
- Only use appropriate tools.

3. Terms and conditions

Our general conditions of delivery and payments are applicable on all our offers, agreements or subsequent revisions.
A copy of our terms and conditions are available on request or can be downloaded from our website: www.doco-international.com.

4. Area of application

This hardware set has been developed for installation in garages in the private sector
- Maximum width 3000 mm
- Maximum height 2500 mm
- Weight door leaf maximum 100 kg
- Maximum temperature range outside* : -20 degr until + 50 degr C
- Relative humidity 20 – 90%
- Lifetime : 15.000 cycles.

* big differences in temperature between the inside and outside can cause deflection in the panel leafs (bi-metal effect). In particular dark coloured panels are susceptible to this problem and should be avoided. Care should be taken during manual handling as there is a big risk of damage.

5. Guidelines

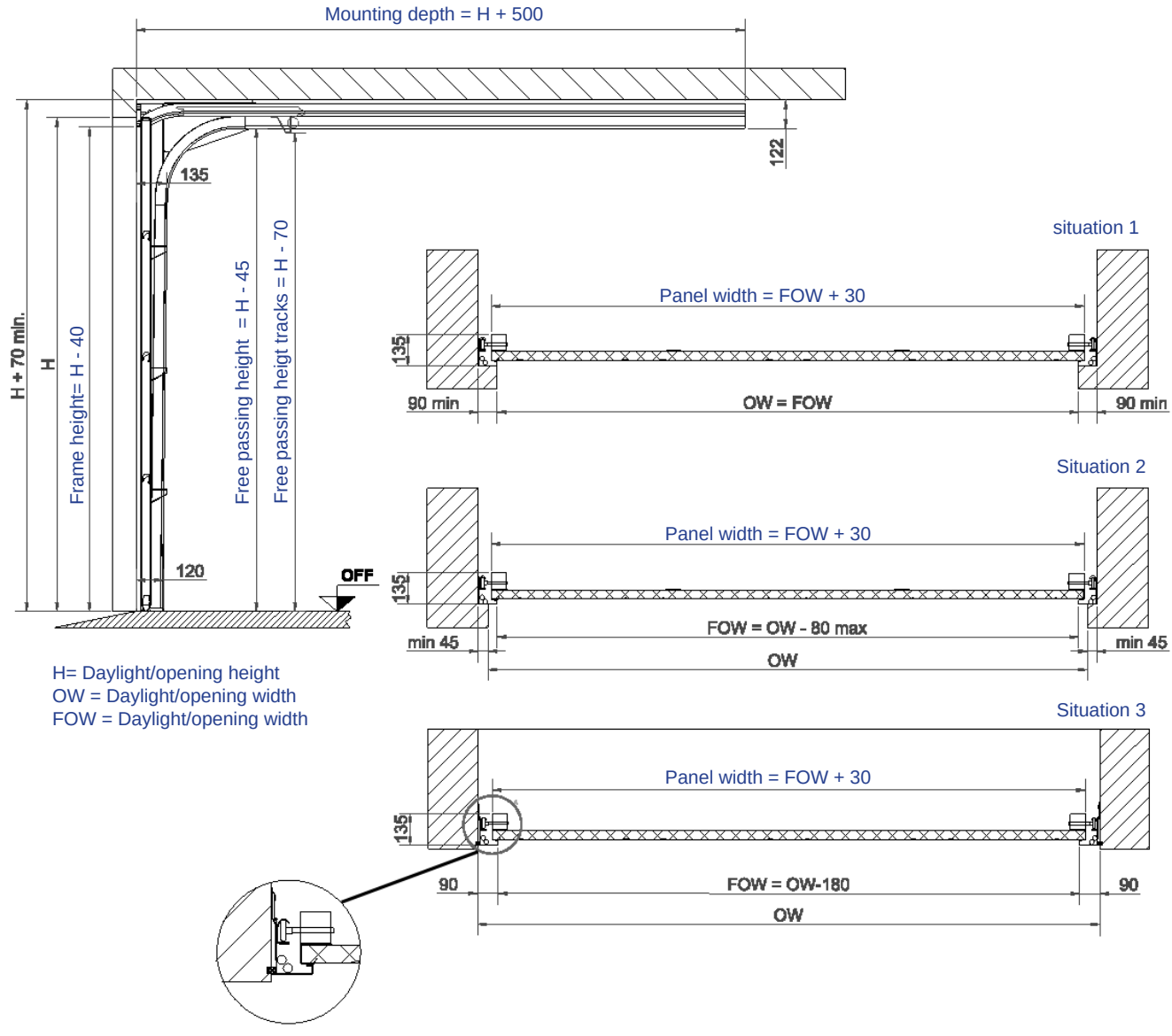
DOCO International had carried out the “Product Test“ of this door (Initial Type Testing = ITT) by the SP institute in Sweden, known as Notified Body No. 0402.
Documents regarding this ITT can, in consultation with DOCO, be transferred to the company which produces the door. This is necessary to complete a CE-dossier.
NOTE: CE-approved only using the correct DOCO-components.

It is the responsibility of the installation company to ensure that the chosen E-operator and panels conform to the product standard EN13241-1 and have carried out the necessary ITT.
If a wicket door is to be installed, it is the responsibility of the installation company to ensure that the complete door conforms to the product standard EN13241-1 and have carried out the necessary ITT.

6. Fixing material building

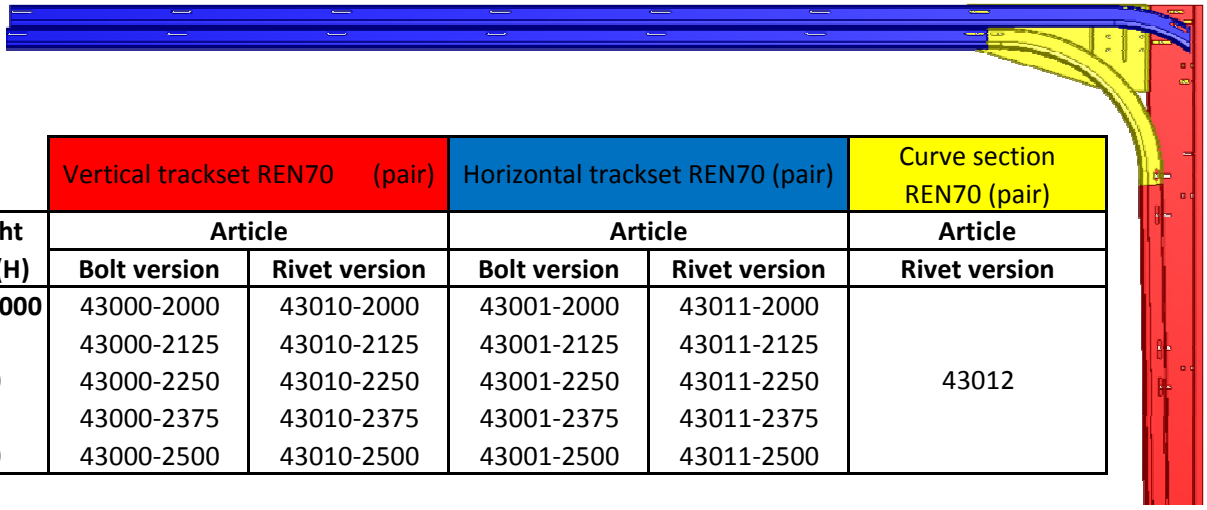
The necessary fixings to ensure the garage door to the building and/or ceiling, are not included!
It is the responsibility of the installer to make sure that the building structure is safe/strong enough, to accept the door and its fixings.
The installer is also responsible for using the correct fixing materials on the right foundation (stone, concrete, steel, wood).
In the image section there will be therefore no specification included.

7. System overview



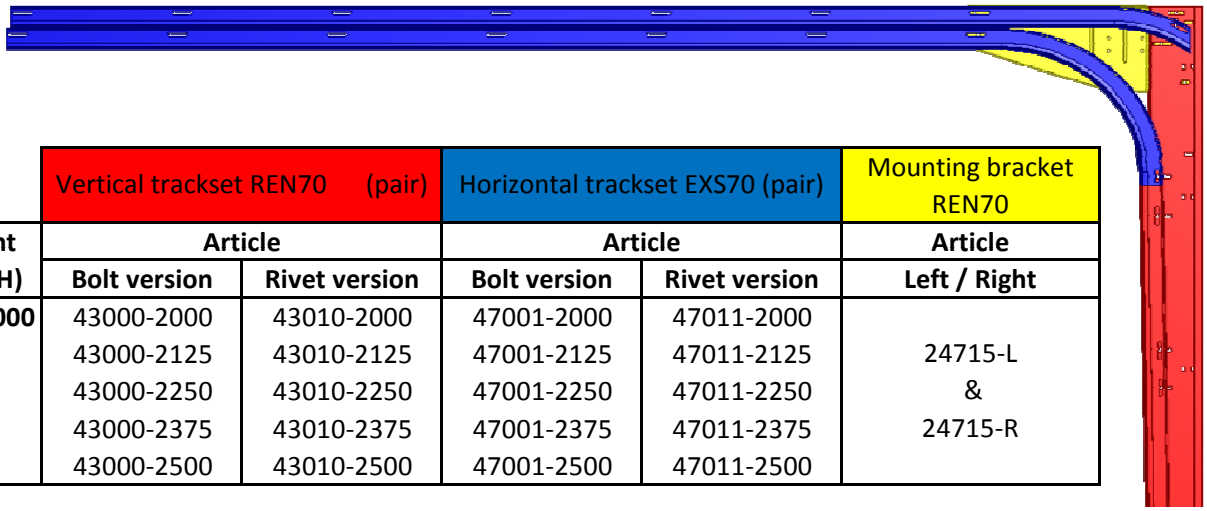
7.1 Pre-assembled tracksets overview EXS70 system

Vertical trackset and horizontal trackset with curve section



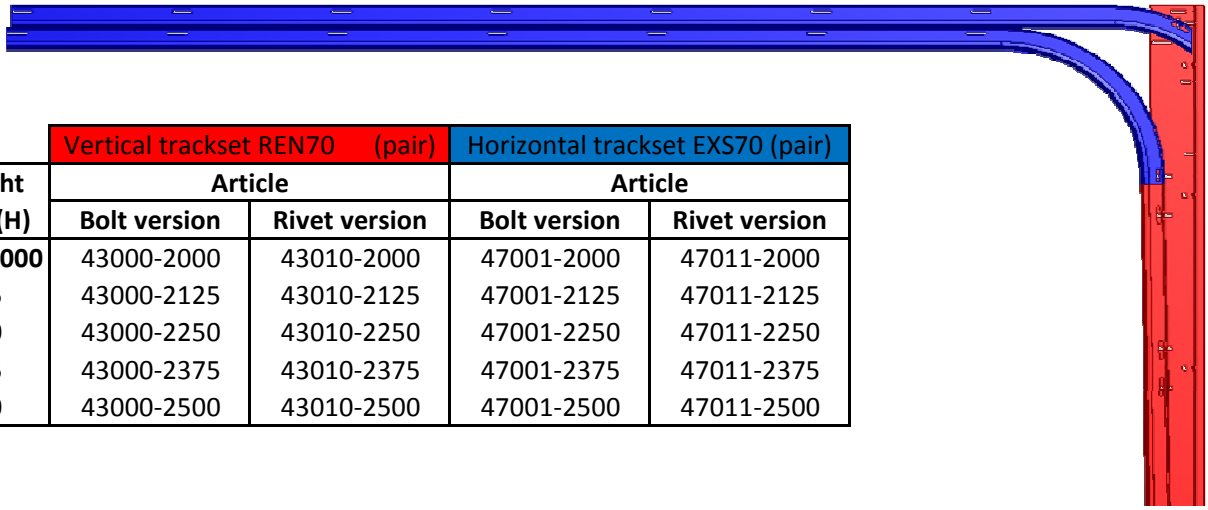
	Vertical trackset REN70 (pair)		Horizontal trackset REN70 (pair)		Curve section REN70 (pair)
Day light height (H)	**Article**		**Article**		**Article**
	Bolt version	**Rivet version**	**Bolt version**	**Rivet version**	**Rivet version**
(1875) 2000	43000-2000	43010-2000	43001-2000	43011-2000	
2125	43000-2125	43010-2125	43001-2125	43011-2125	
2250	43000-2250	43010-2250	43001-2250	43011-2250	43012
2375	43000-2375	43010-2375	43001-2375	43011-2375	
2500	43000-2500	43010-2500	43001-2500	43011-2500	

Vertical trackset and horizontal trackset with mounting bracket



	Vertical trackset REN70 (pair)		Horizontal trackset EXS70 (pair)		Mounting bracket REN70
Day light height (H)	**Article**		**Article**		**Article**
	Bolt version	**Rivet version**	**Bolt version**	**Rivet version**	**Left / Right**
(1875) 2000	43000-2000	43010-2000	47001-2000	47011-2000	
2125	43000-2125	43010-2125	47001-2125	47011-2125	24715-L
2250	43000-2250	43010-2250	47001-2250	47011-2250	&
2375	43000-2375	43010-2375	47001-2375	47011-2375	24715-R
2500	43000-2500	43010-2500	47001-2500	47011-2500	

Vertical trackset and horizontal trackset



	Vertical trackset REN70 (pair)		Horizontal trackset EXS70 (pair)	
Day light height (H)	**Article**		**Article**	
	Bolt version	**Rivet version**	**Bolt version**	**Rivet version**
(1875) 2000	43000-2000	43010-2000	47001-2000	47011-2000
2125	43000-2125	43010-2125	47001-2125	47011-2125
2250	43000-2250	43010-2250	47001-2250	47011-2250
2375	43000-2375	43010-2375	47001-2375	47011-2375
2500	43000-2500	43010-2500	47001-2500	47011-2500

7.2

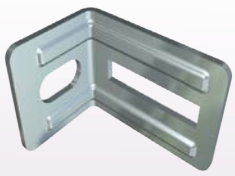
EXS70 SPRING MATRIX & CABLE

Door weight [kg] (min…max)	Door height [mm] (min…max)				
	1875 - 2000	2000 - 2125	2126 - 2250	2251 - 2375	2376 - 2500
46 - 49	115300	115301	115302	N/A	N/A
49,1 - 52	115308	115300	115301	115302	N/A
52,1 - 55	115307	115308	115300	115301	115302
55,1 - 58	115306	115307	115308	115300	115301
58,1 - 61	115305	115306	115307	115308	115300
61,1 - 64	115304	115305	115306	115307	115308
64,1 - 67	115303	115304	115305	115306	115307
67,1 - 70	115303	115303	115304	115305	115306
70,1 - 73	115311	115303	115303	115315	115305
73,1 - 76	115311	115311	115303	115315	115315
76,1 - 79	115310	115311	115311	115314	115315
79,1 - 82	N/A	115310	115311	115314	115314
82,1 - 85	N/A	115310	115310	115313	115314
85,1 - 88	N/A	N/A	115310	115313	115313
88,1 - 91	N/A	N/A	115309	115312	115313
91,1 - 94	N/A	N/A	N/A	N/A	115312
94,1 - 97	N/A	N/A	N/A	N/A	115316
97,1 - 100	N/A	N/A	N/A	N/A	115316
Cable set	115200	115201	115202	115203	115204

Notes:
Max. door weight 100kg (system limit)
Max. door width 3000mm (system limit)
Door weights in matrix indicates complete effective door weight (including hardware)
Matrix is based on 4 equal springs each door
Electric operator is recommended for best operation of the door

7.3.1 Lintel/Angle box for REN70 & EXS70 system - 490007

2x 24623

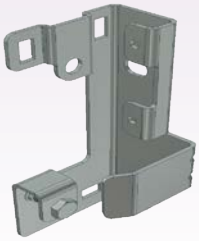


10x 24622

2x 24624

14x 14028

7.3.2 Standard Hardware Box EXS70 - 115950

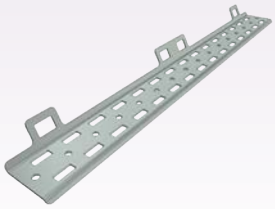


1x 115001

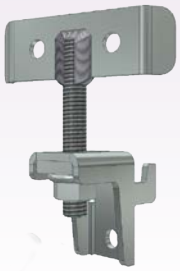
1x 115002

1x 115003

1x 115004

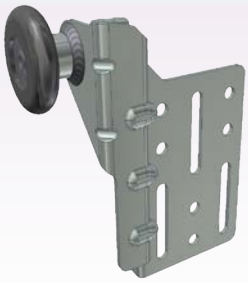


2x 115005

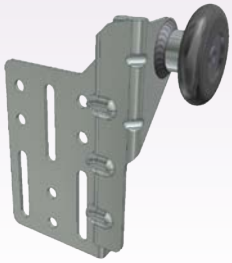


2x 115006

2x 115007

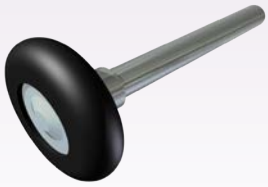


1x 115008



1x 115009

1x pair 25052



10x 25008

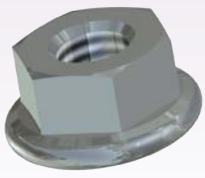
10x 250001

2x 24801

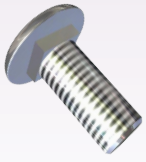
2x 24803

8x 25630 (h=5)
16x 25631 (h=7.5)
12x 25632 (h=10)

26x 150002 (6.3x25)
10x 14020 (6.3x16)

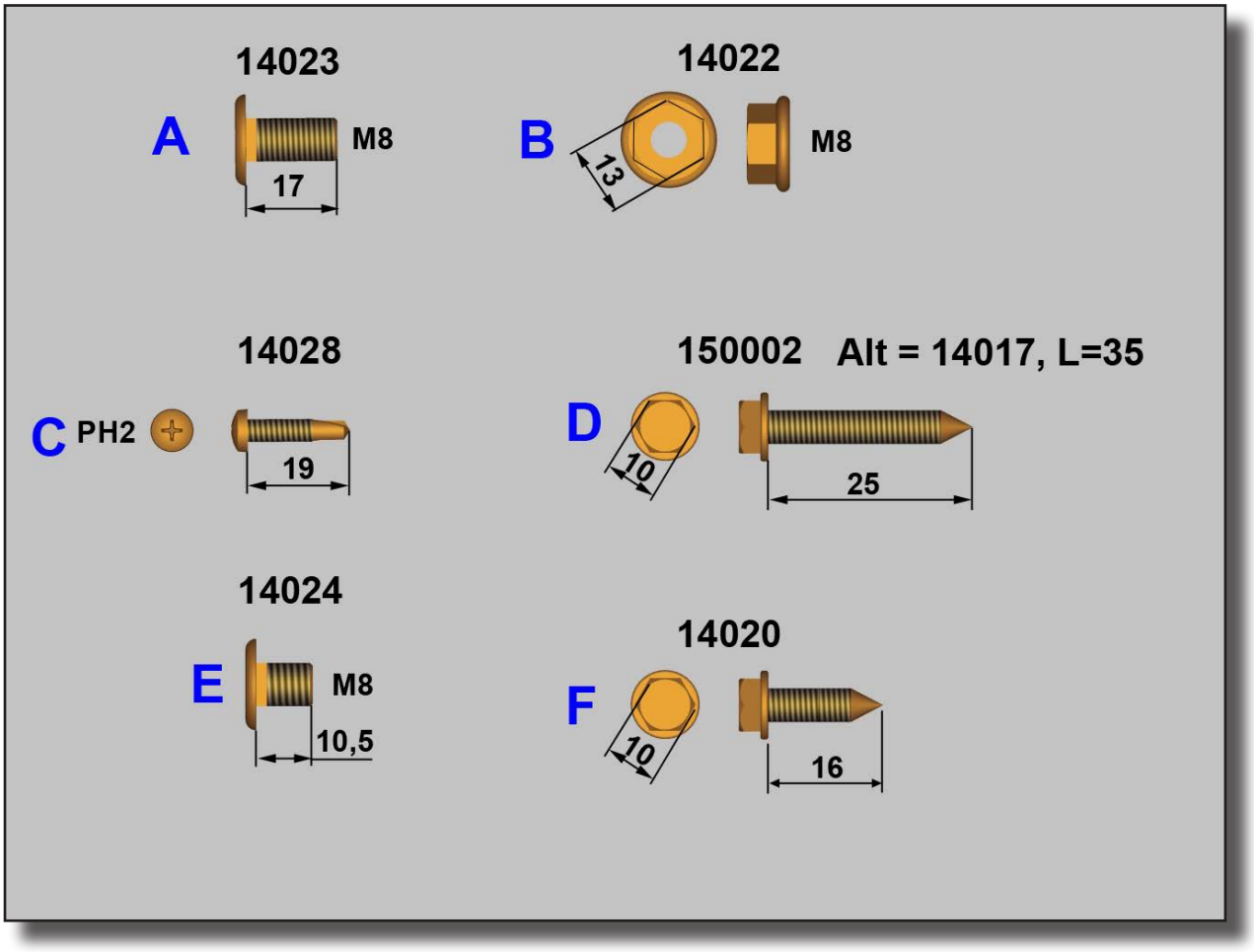


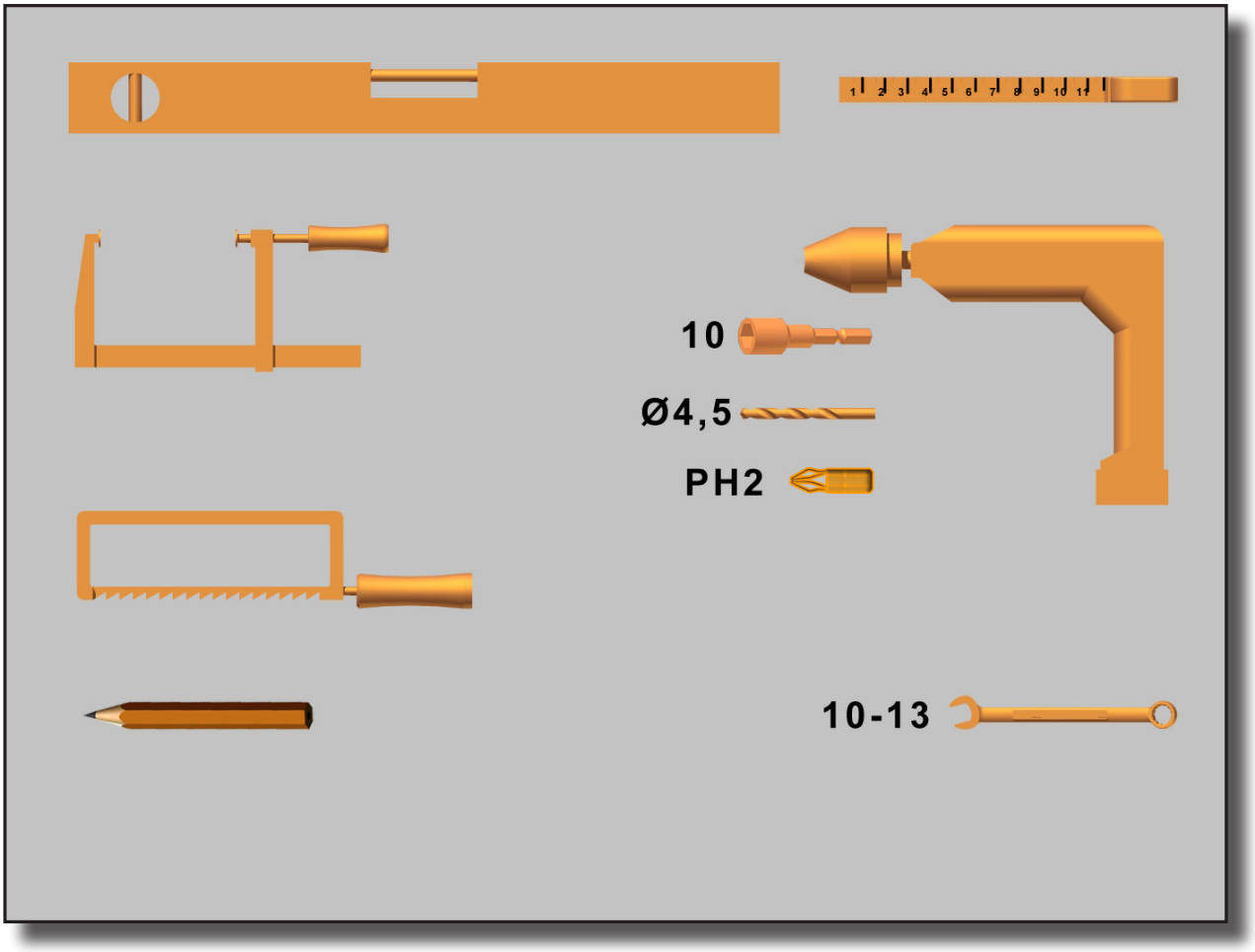
40x 14022 (M8)



6x 14023 (M8x17)
34x 14024 (M8x10)

2x 115011


14023
A
M8
17
14022
B
13
M8
14028
C PH2
19
150002 Alt = 14017, L=35
D
10
25
14024
E
M8
10,5
14020
F
10
16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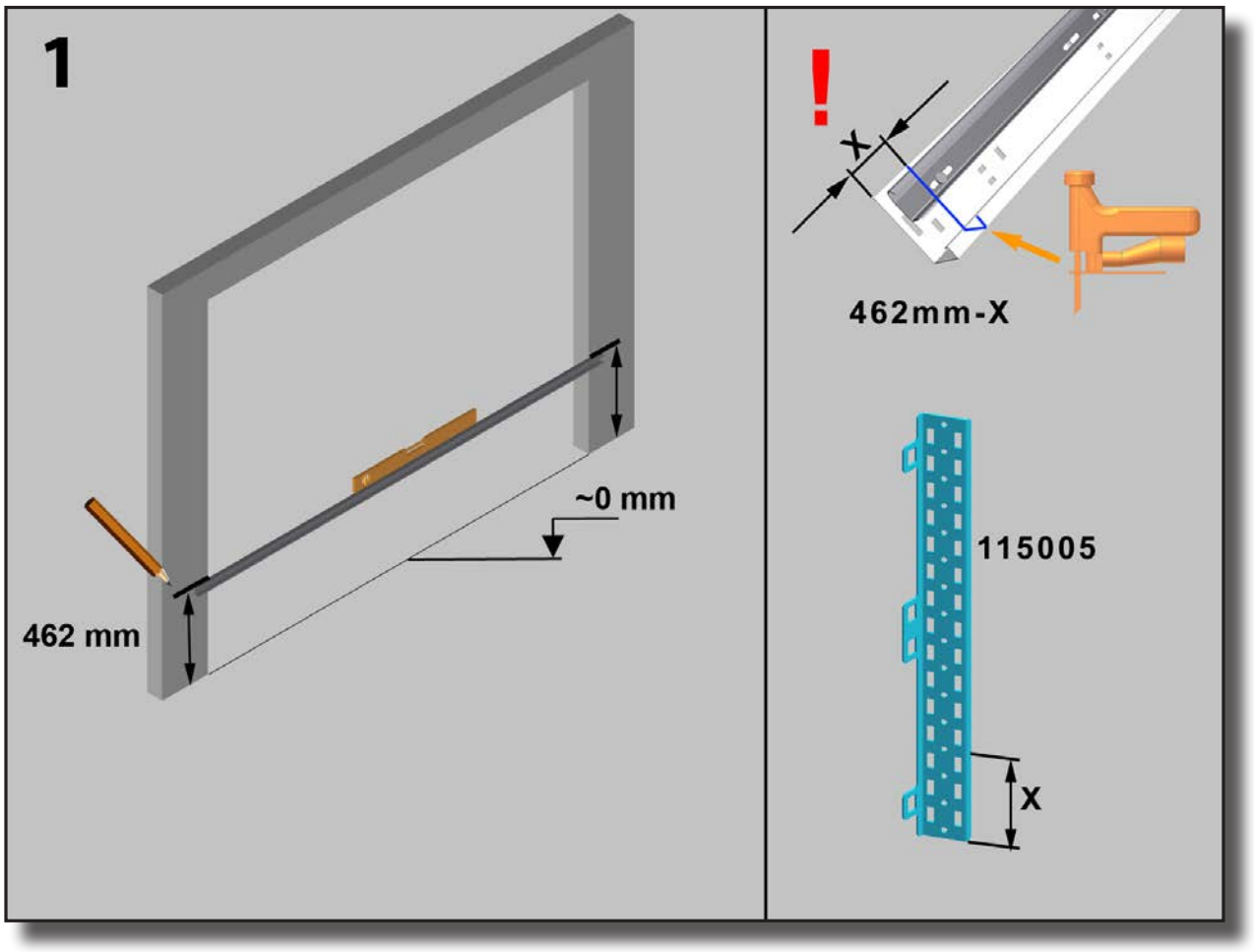
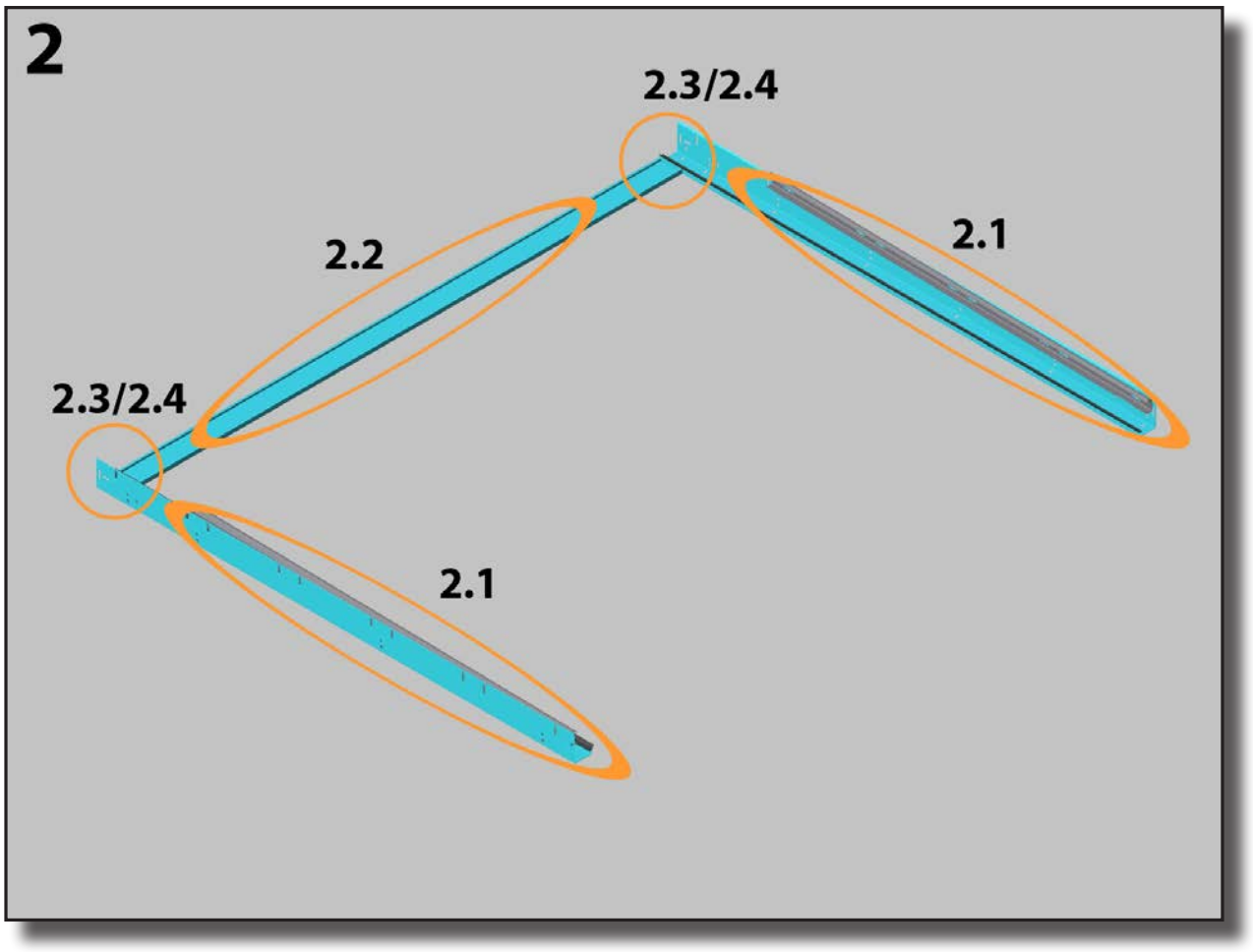
Ø4,5
PH2
10-13


1
462 mm
~0 mm
!
X
462mm-X
115005
X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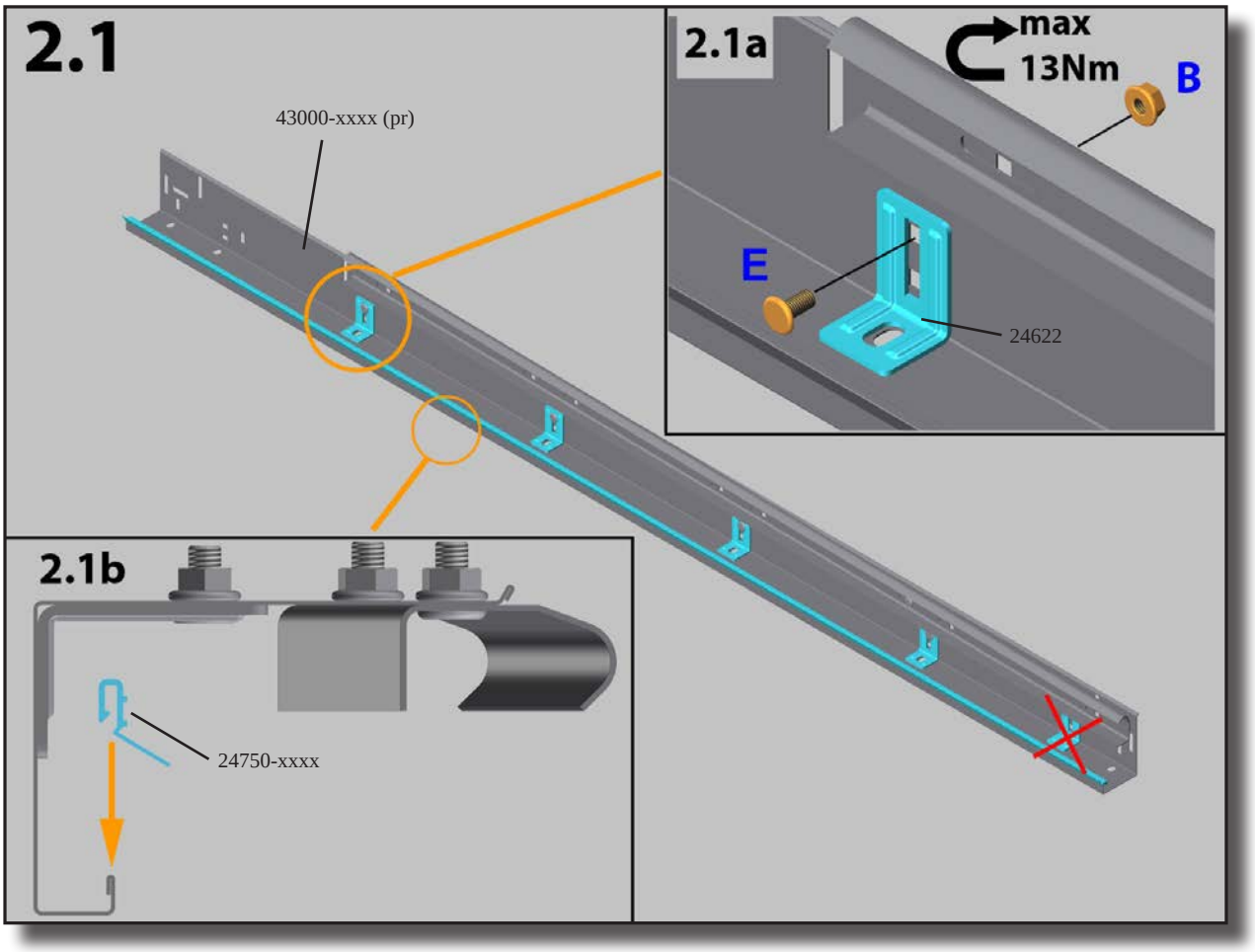
2.3/2.4
2.2
2.1
2.3/2.4
2.1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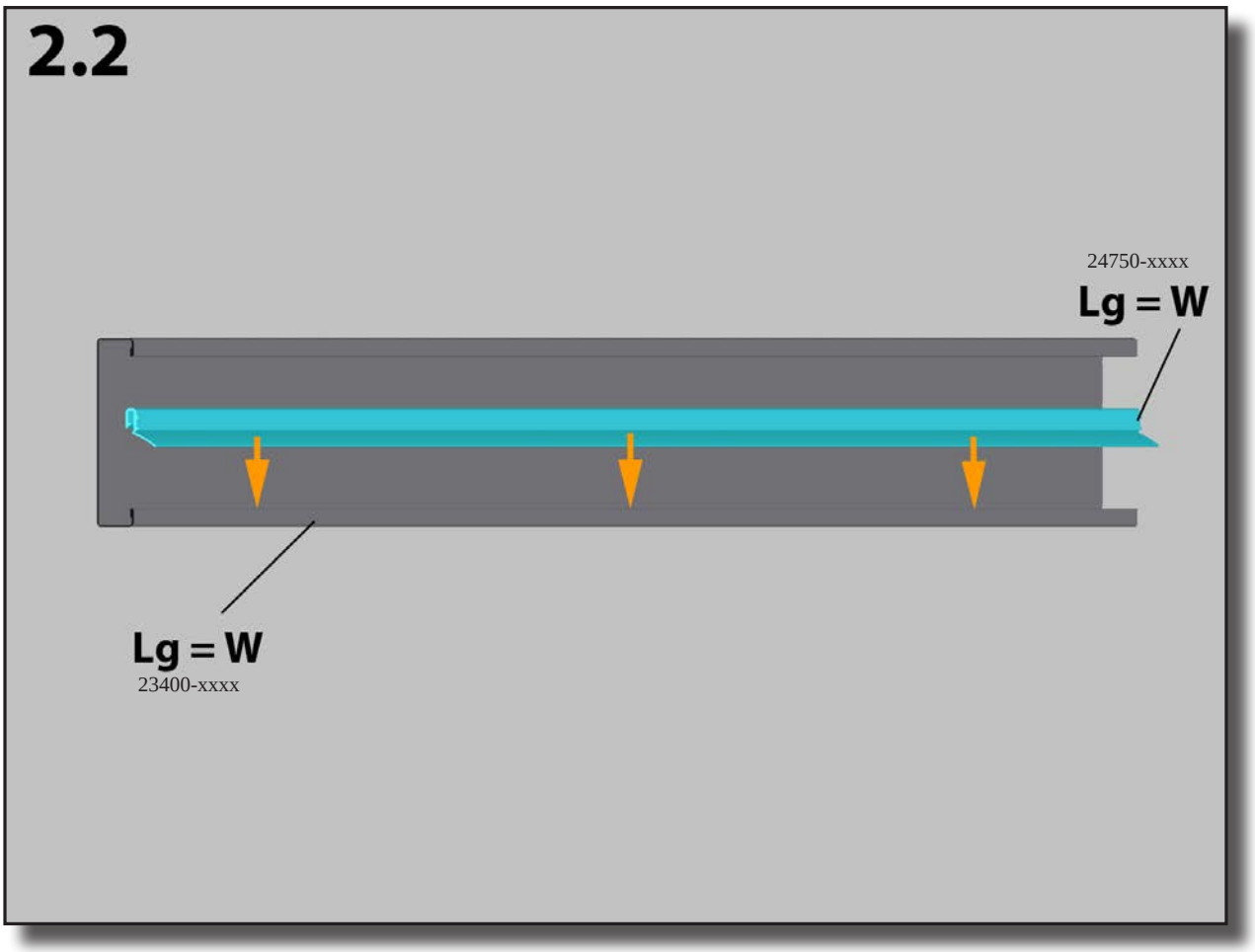
43000-xxxx (pr)
2.1a
max
13Nm
B
E
24622
2.1b
24750-xxxx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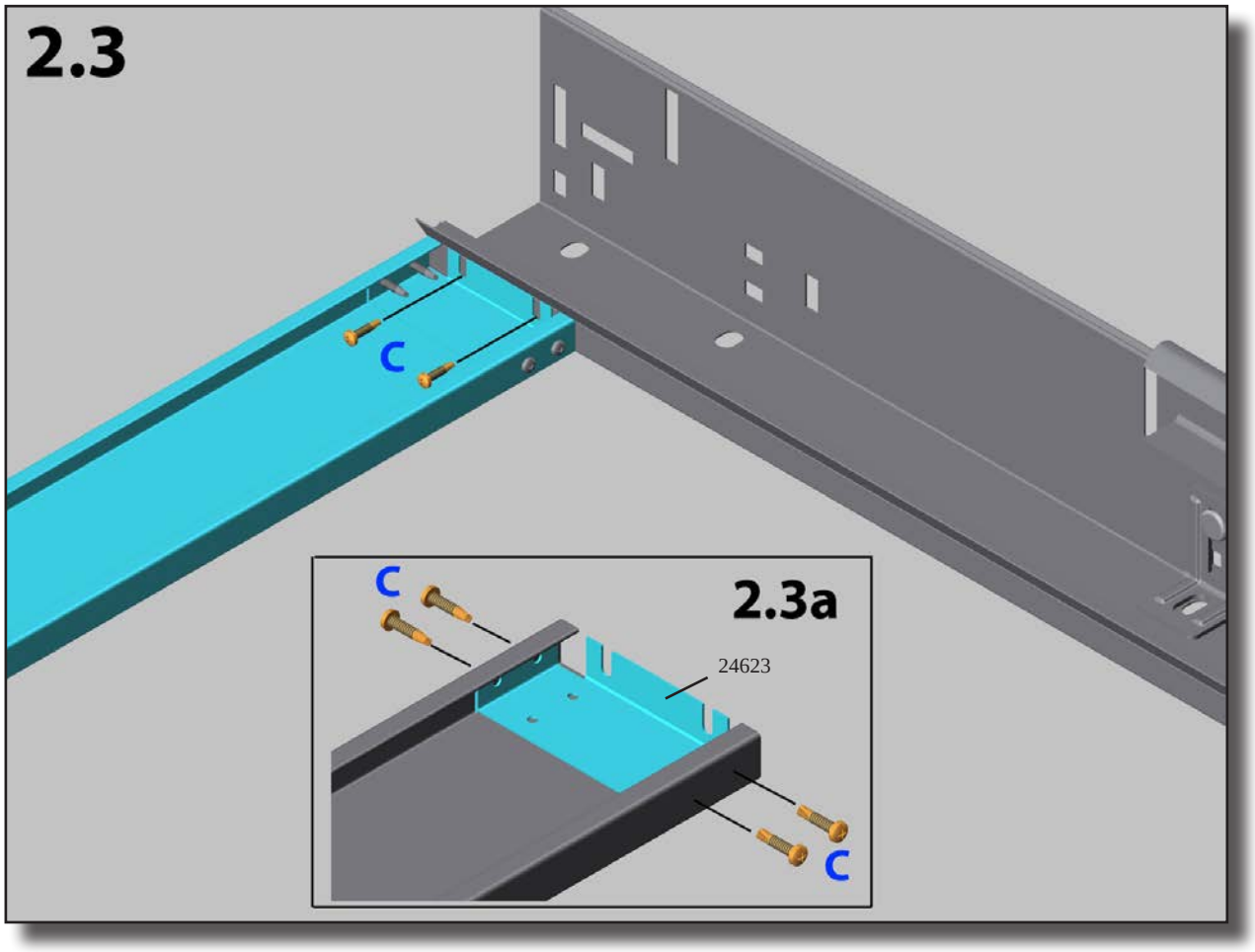
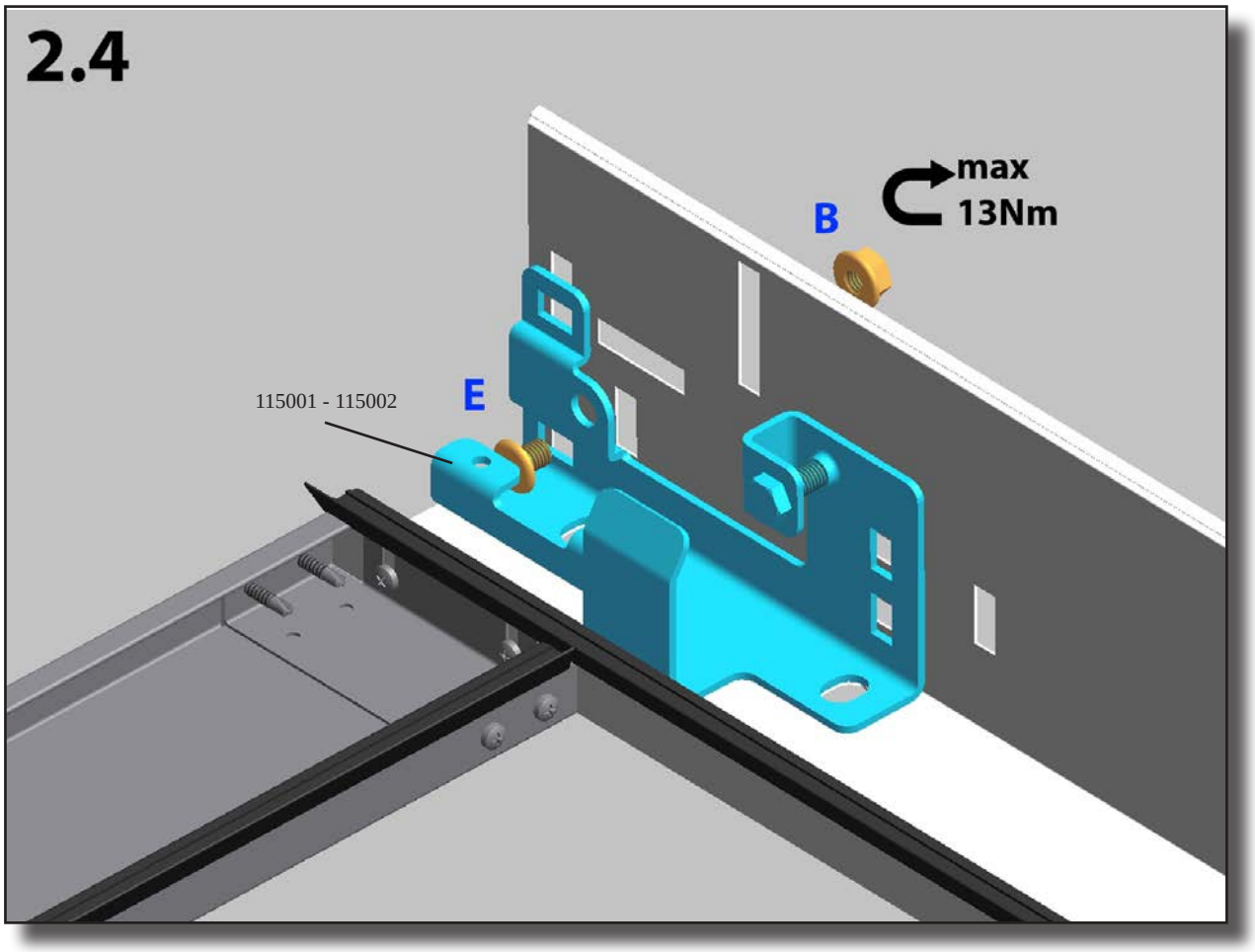
24750-xxxx
Lg = W
Lg = W
23400-xxxx


2.3
C
C
2.3a
24623
C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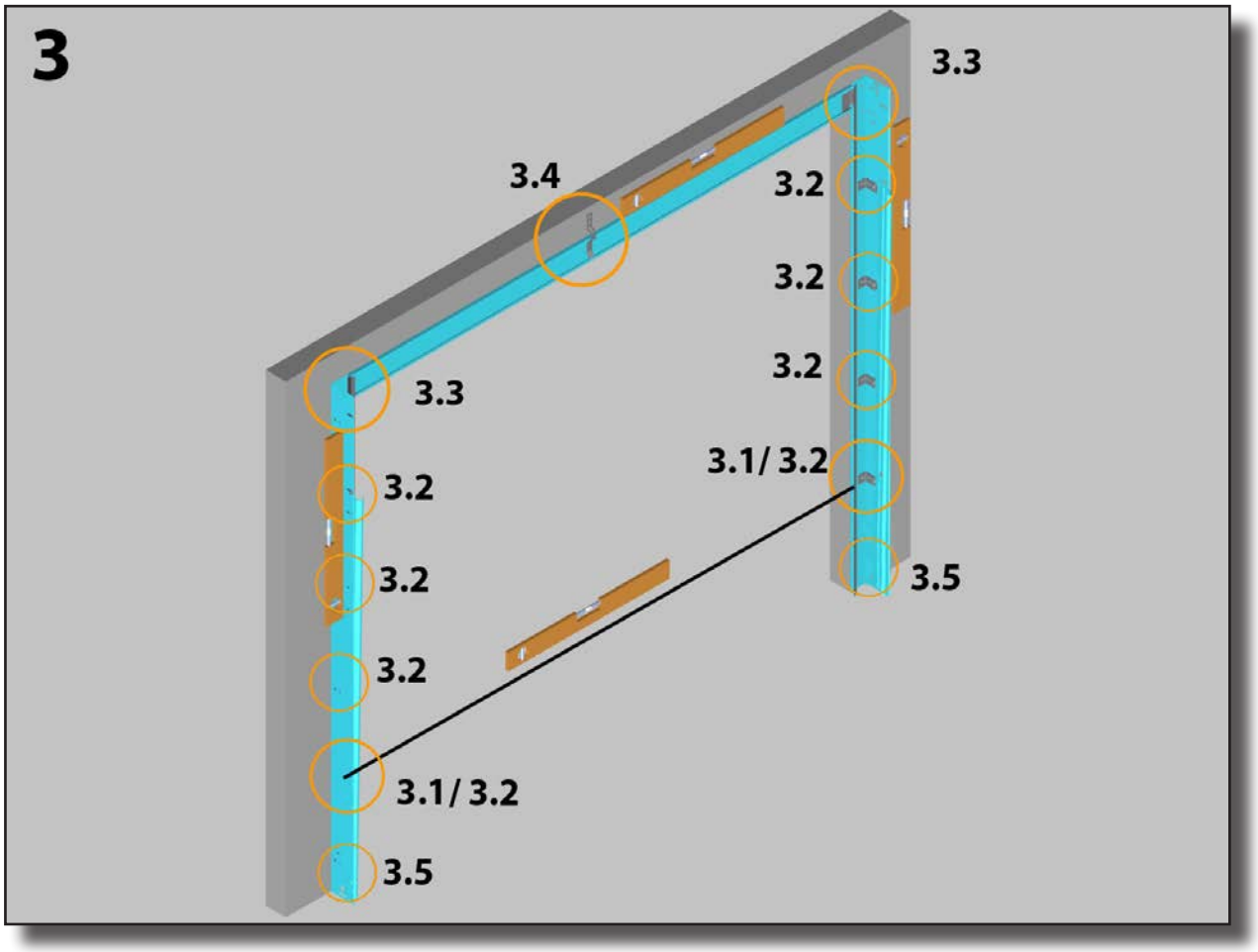
max
13Nm
B
E
115001 - 115002


3
3.3
3.4
3.2
3.2
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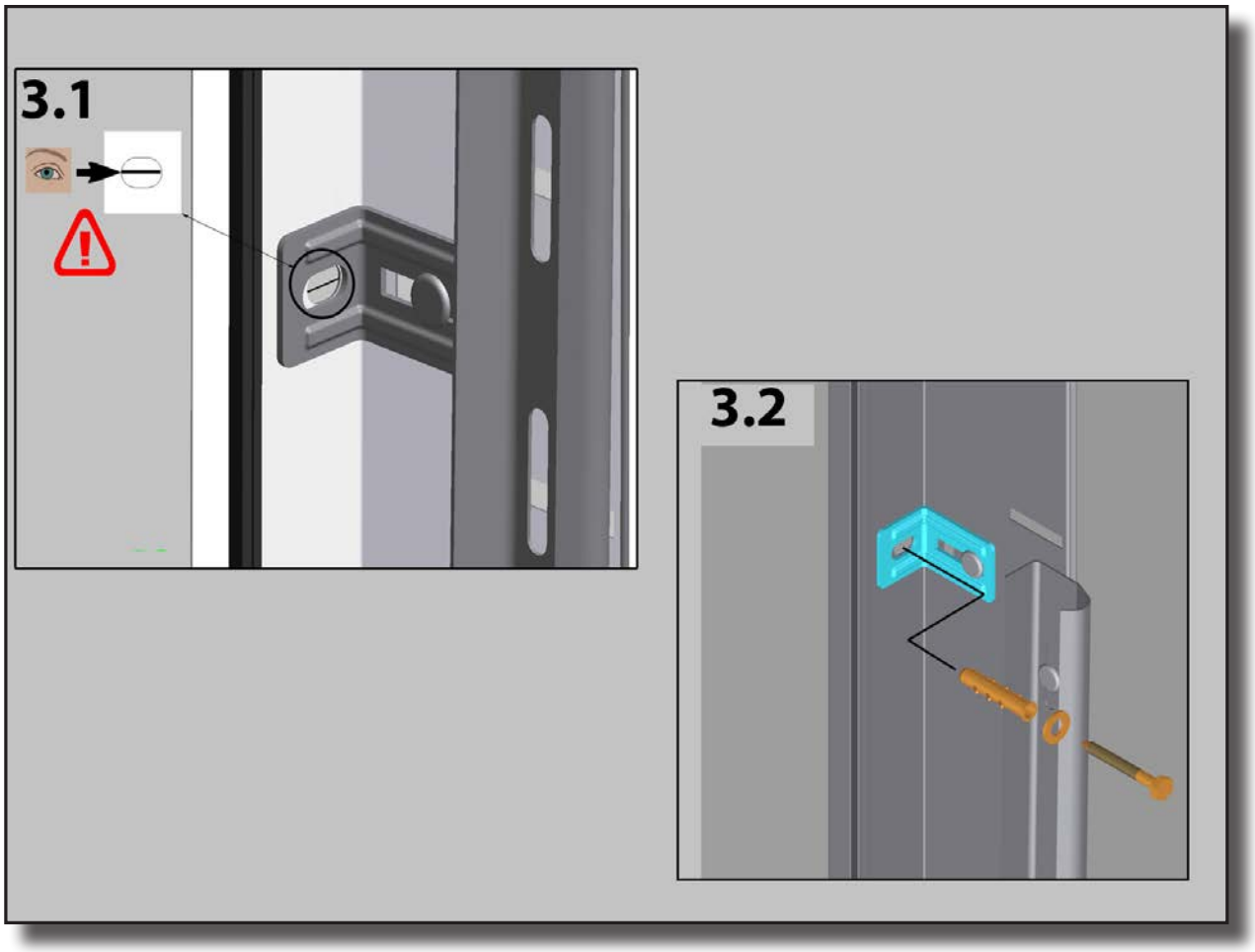
3.3
3.1/ 3.2
3.2
3.5
3.2
3.2
3.1/ 3.2
3.5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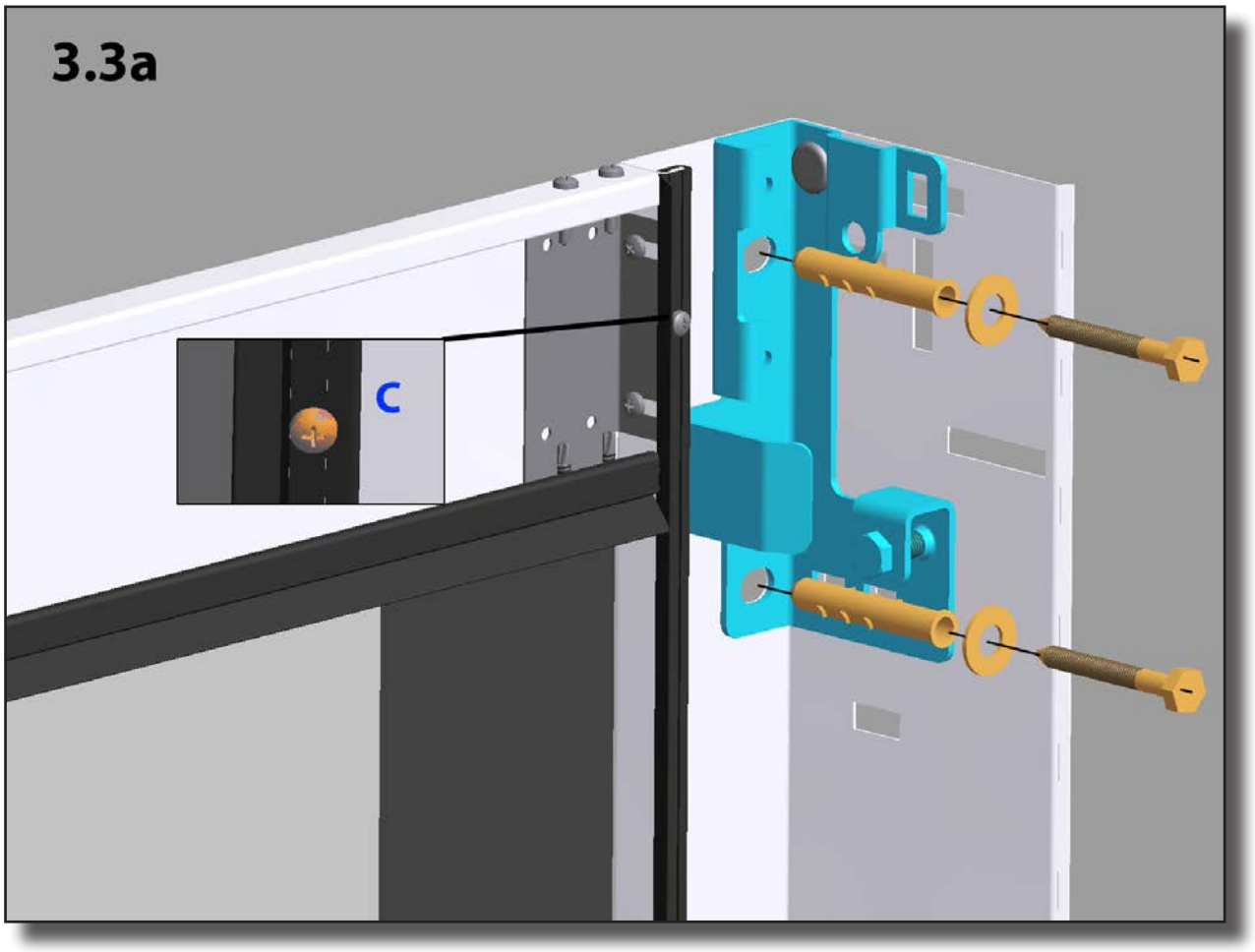
3.2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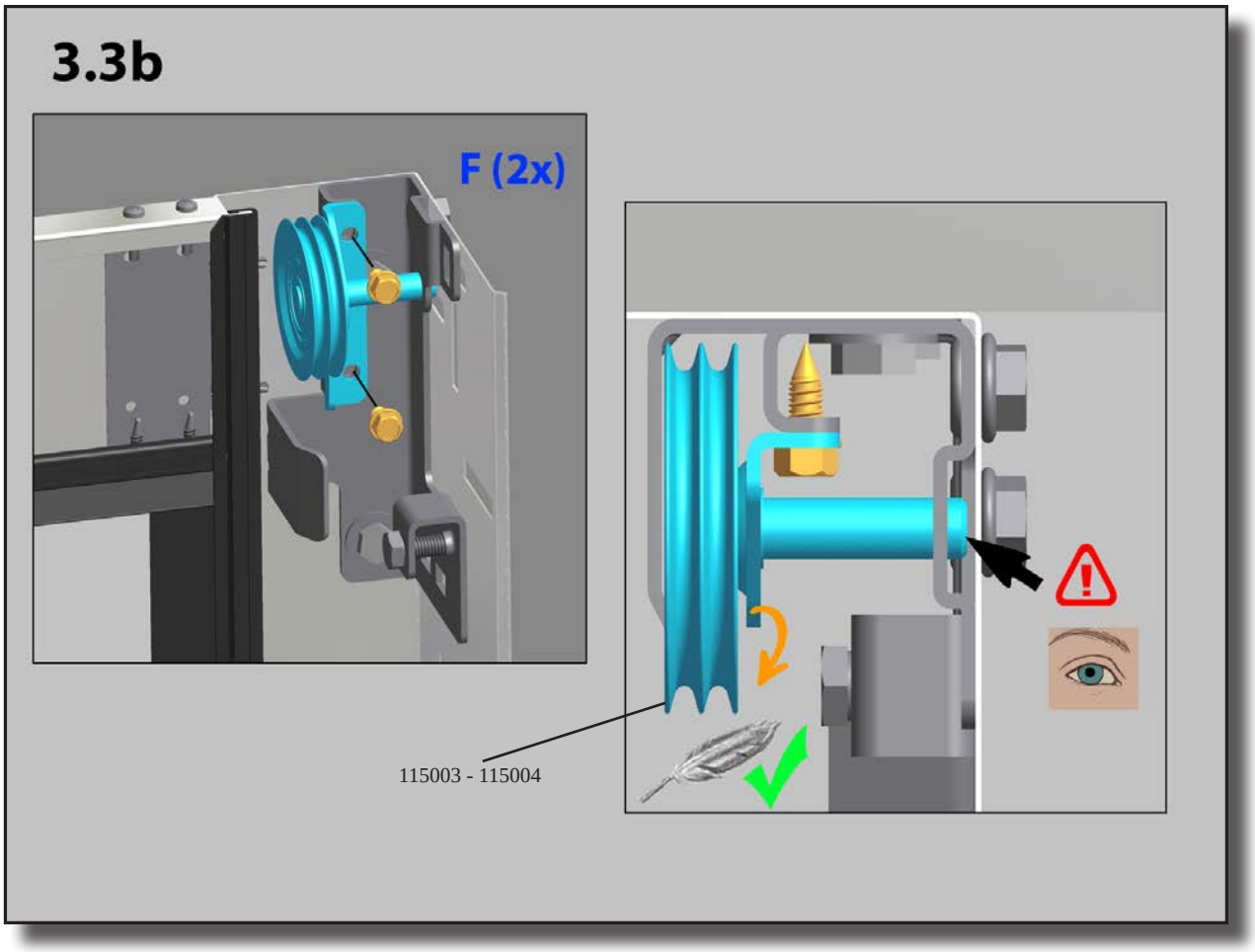
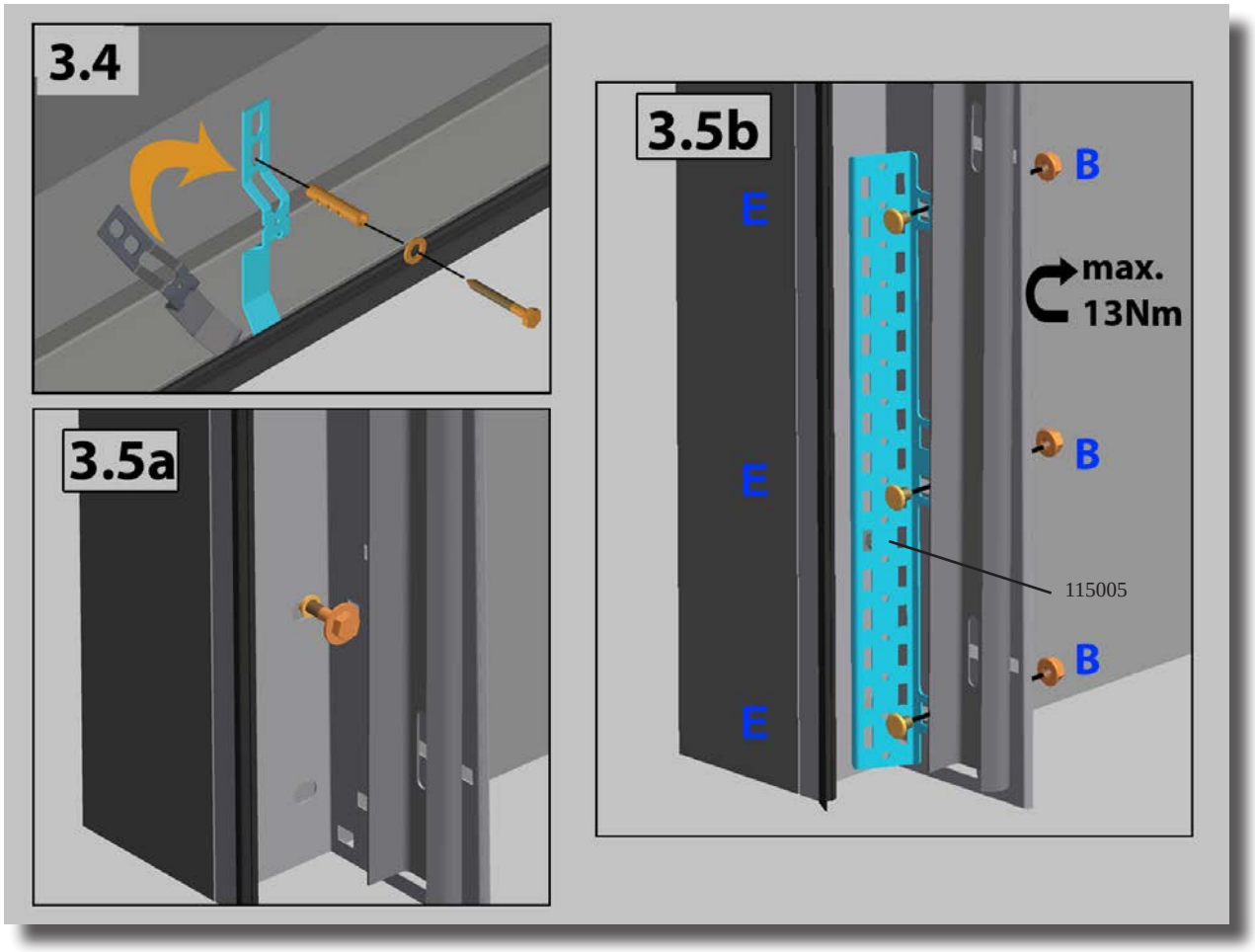

3.3b
F (2x)
115003 - 115004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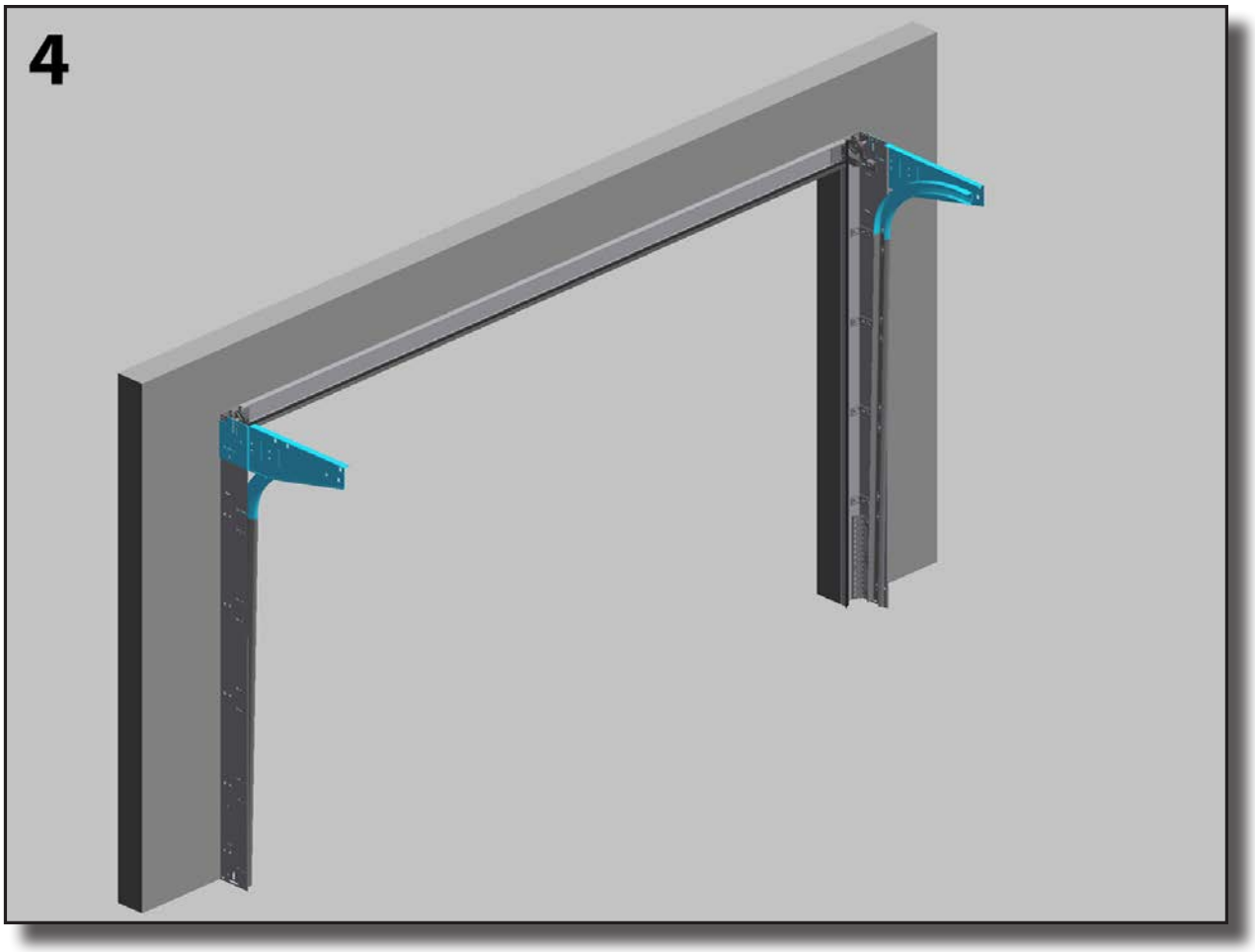
3.5b
E
E
E
B
B
B
max.
13Nm
115005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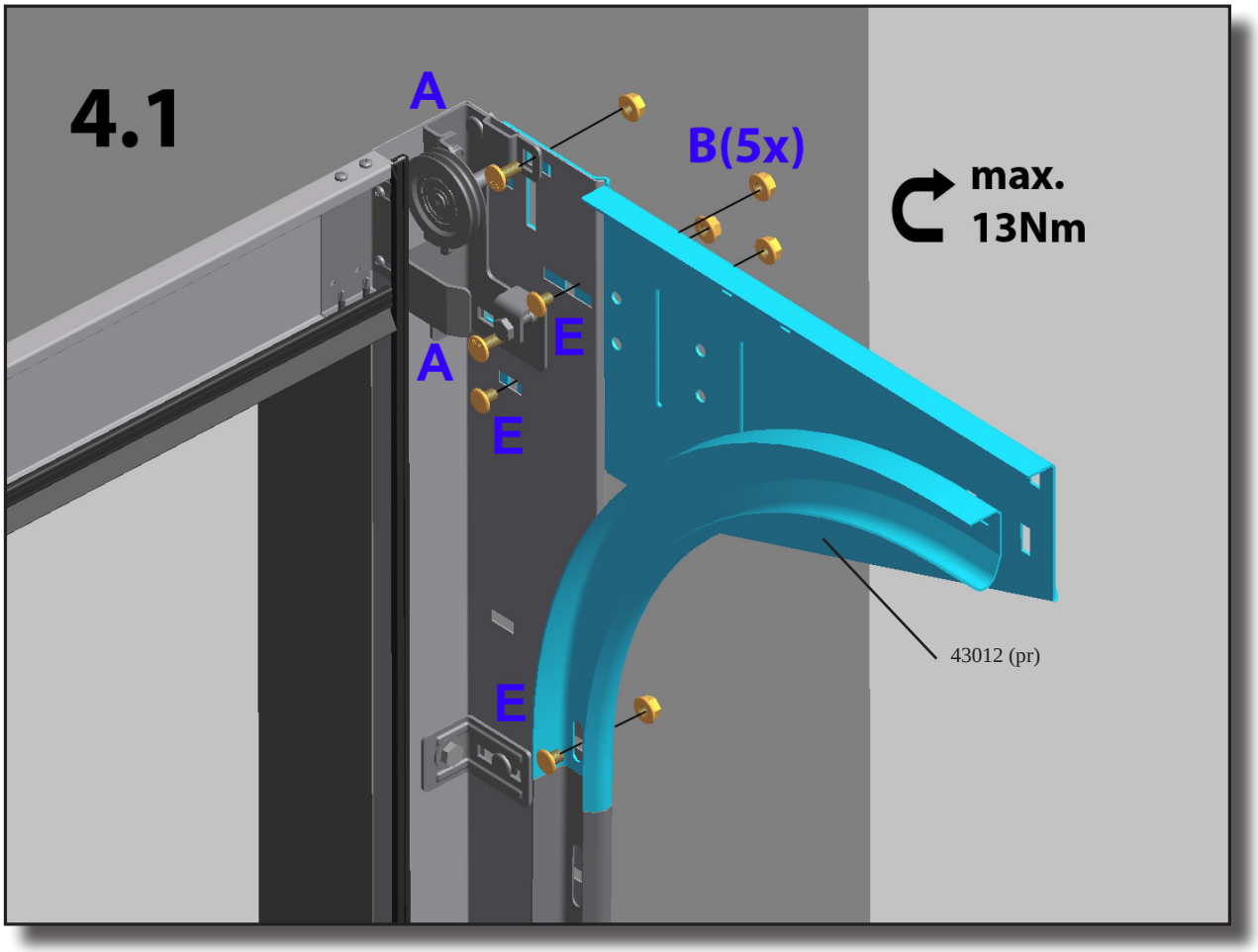
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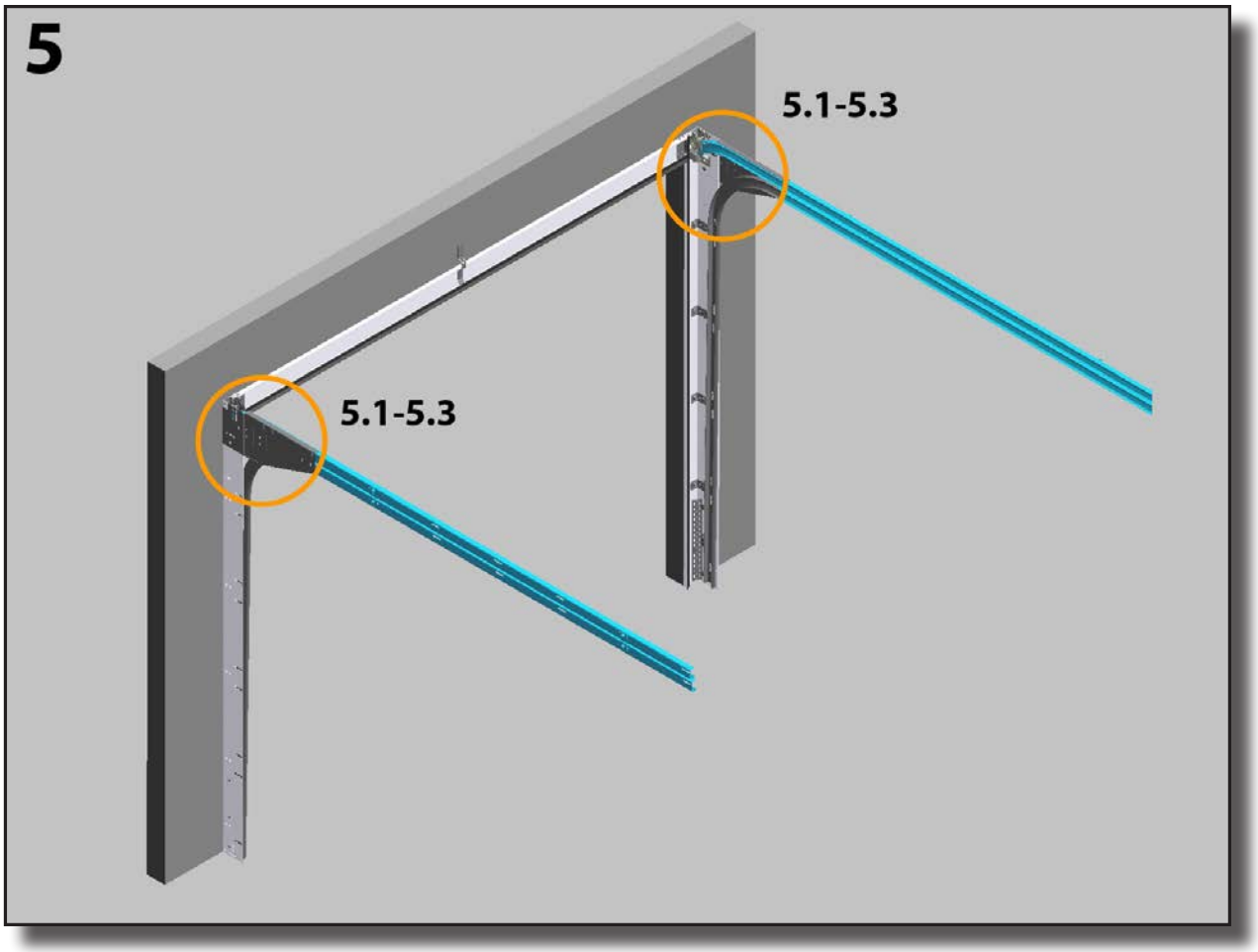
A
B(5x)
max.
13Nm
A
E
E
E
43012 (pr)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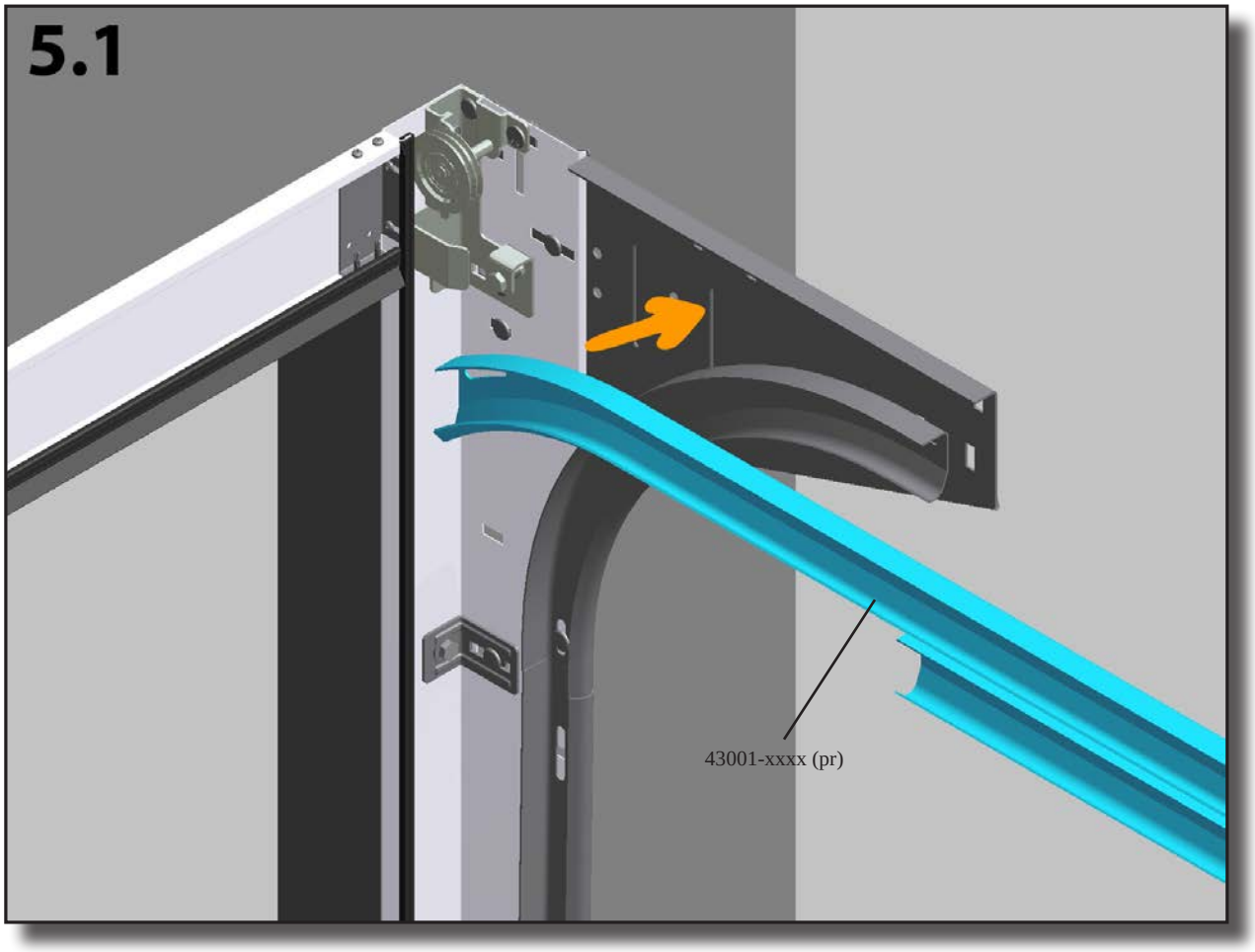
5.1-5.3
5.1-5.3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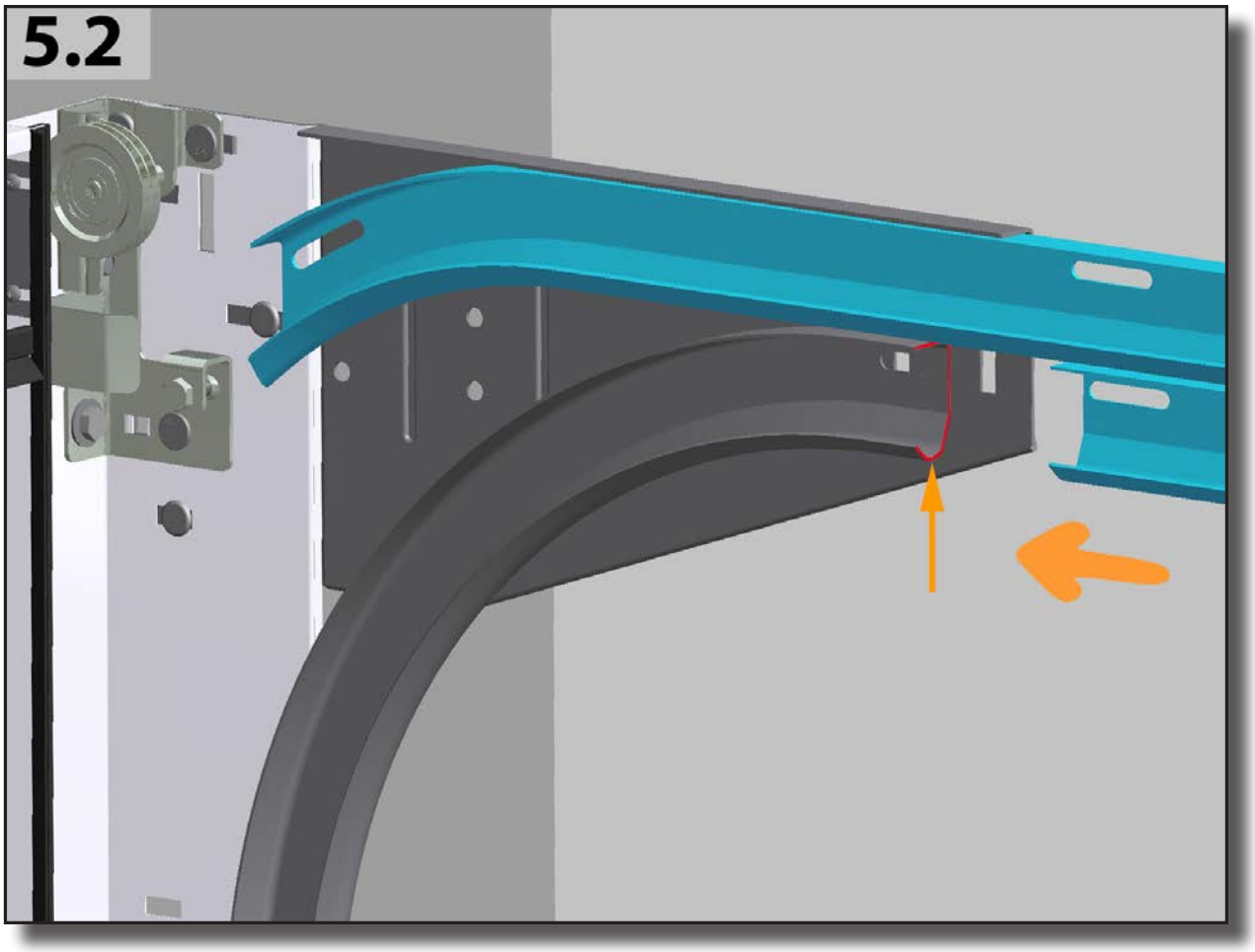
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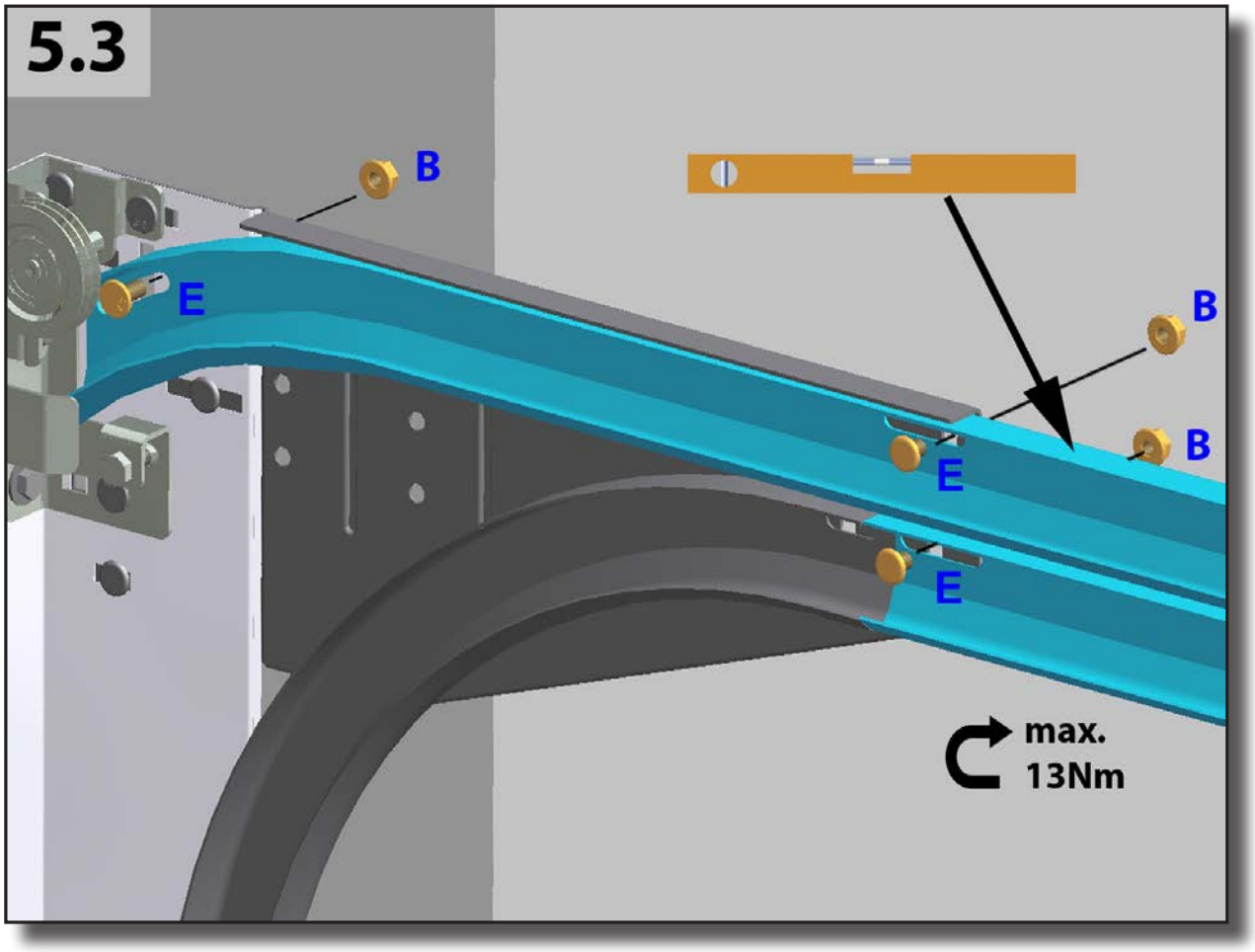
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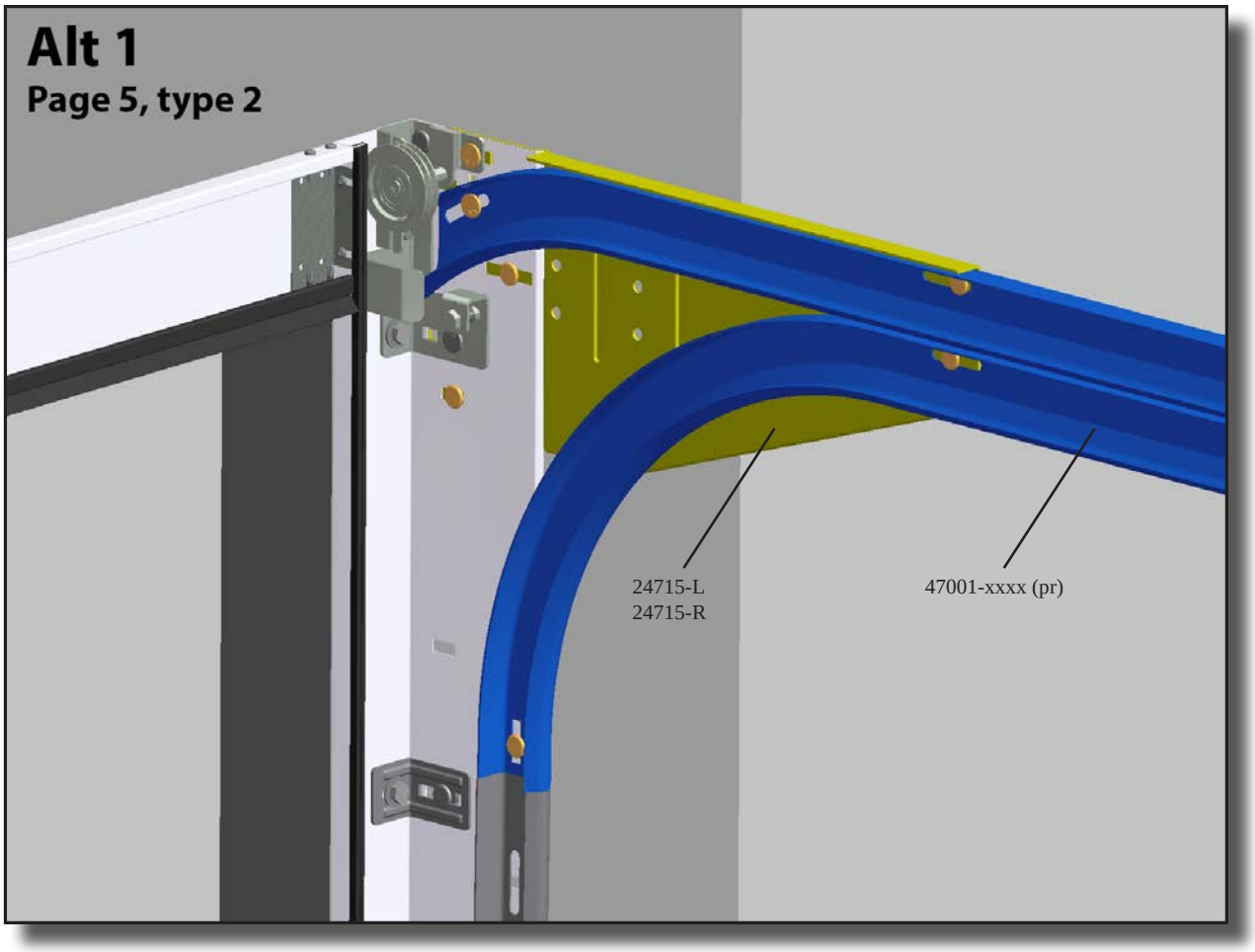
B
E
B
B
E
E
max.
13Nm


Alt 1
Page 5, type 2
24715-L
24715-R
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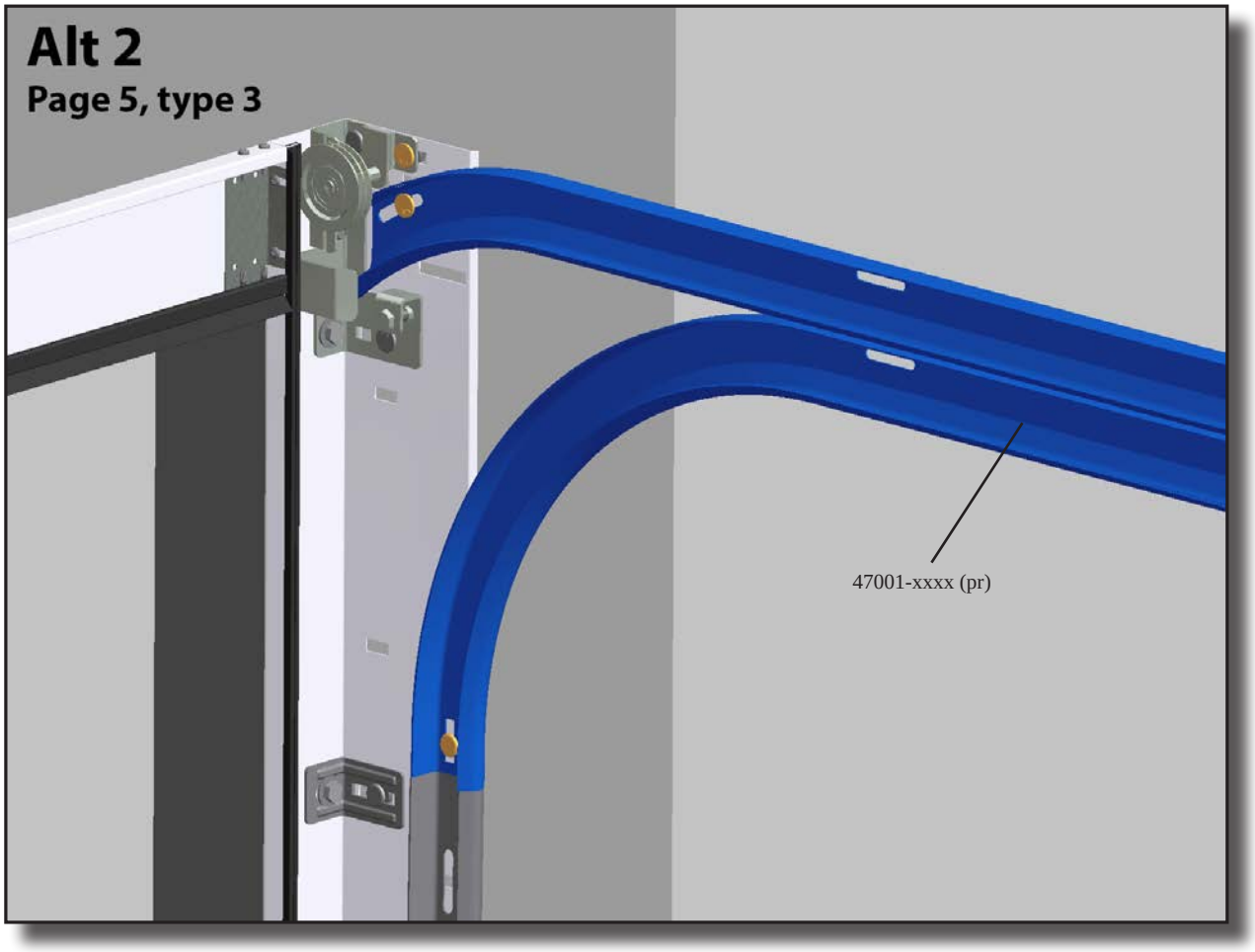
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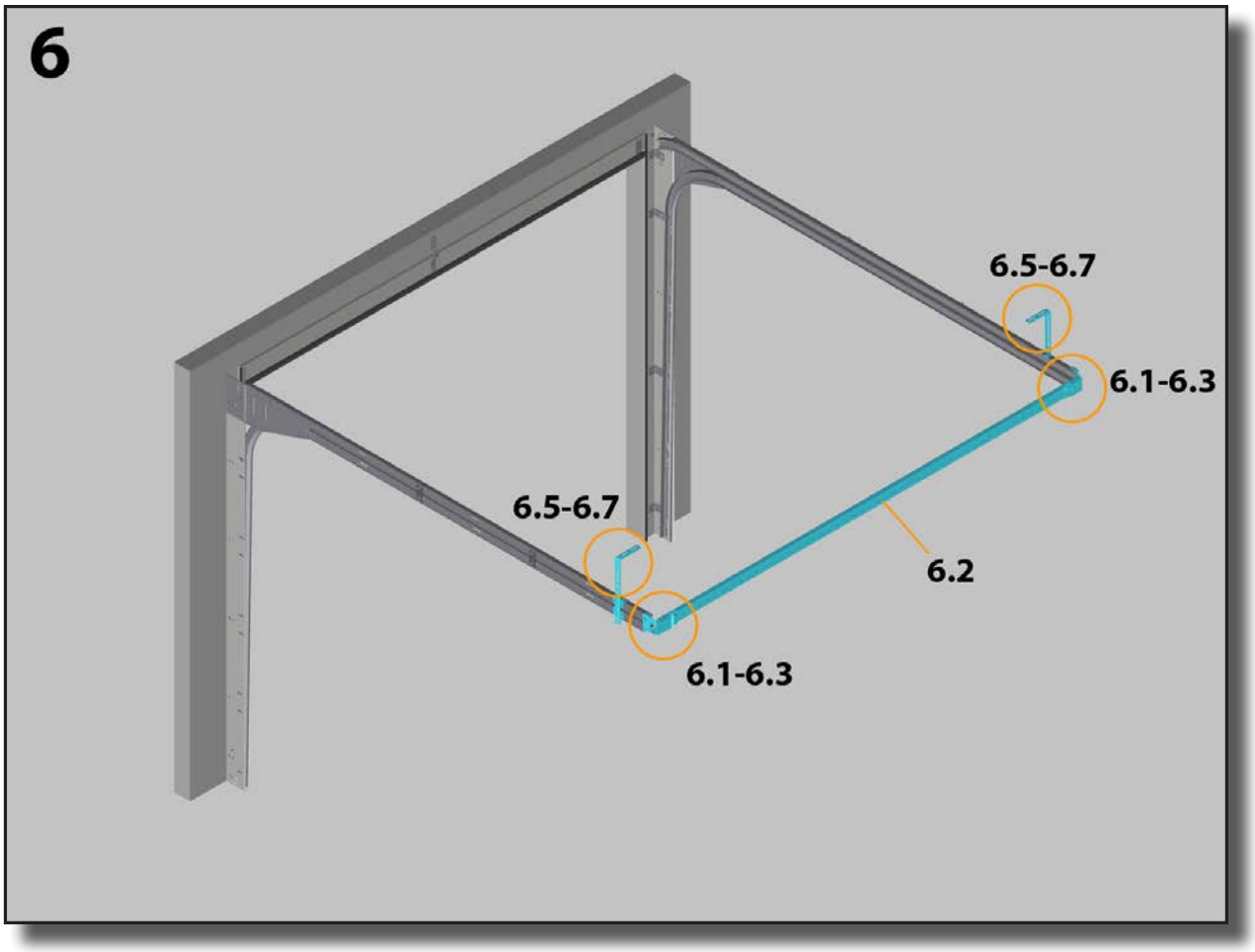
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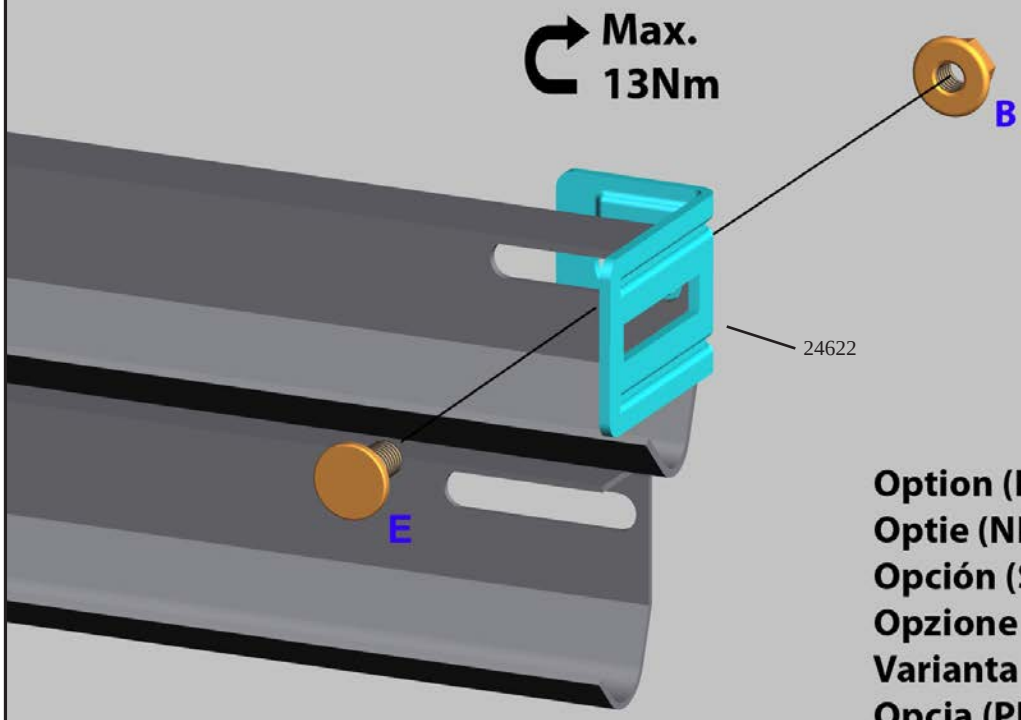
6.1-6.3
6.5-6.7
6.2
6.1-6.3

6.1



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Opción (SP)
Opzione (IT)
Varianta (CZ)
Opcja (PL)

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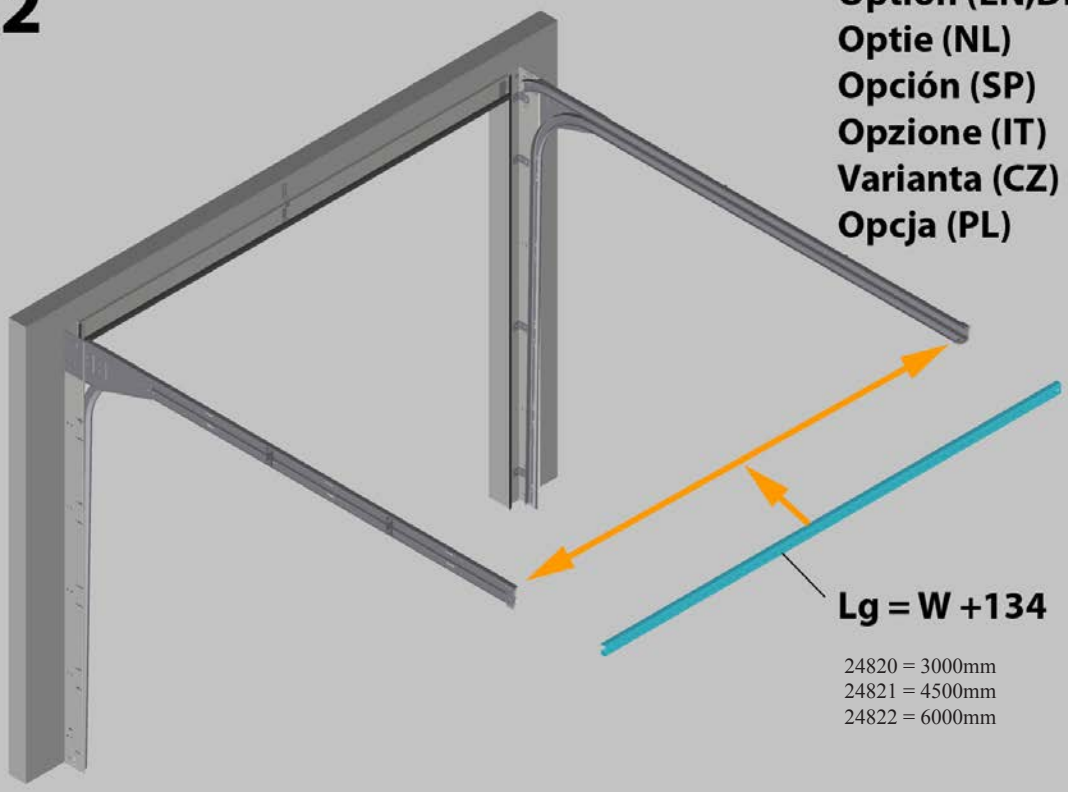

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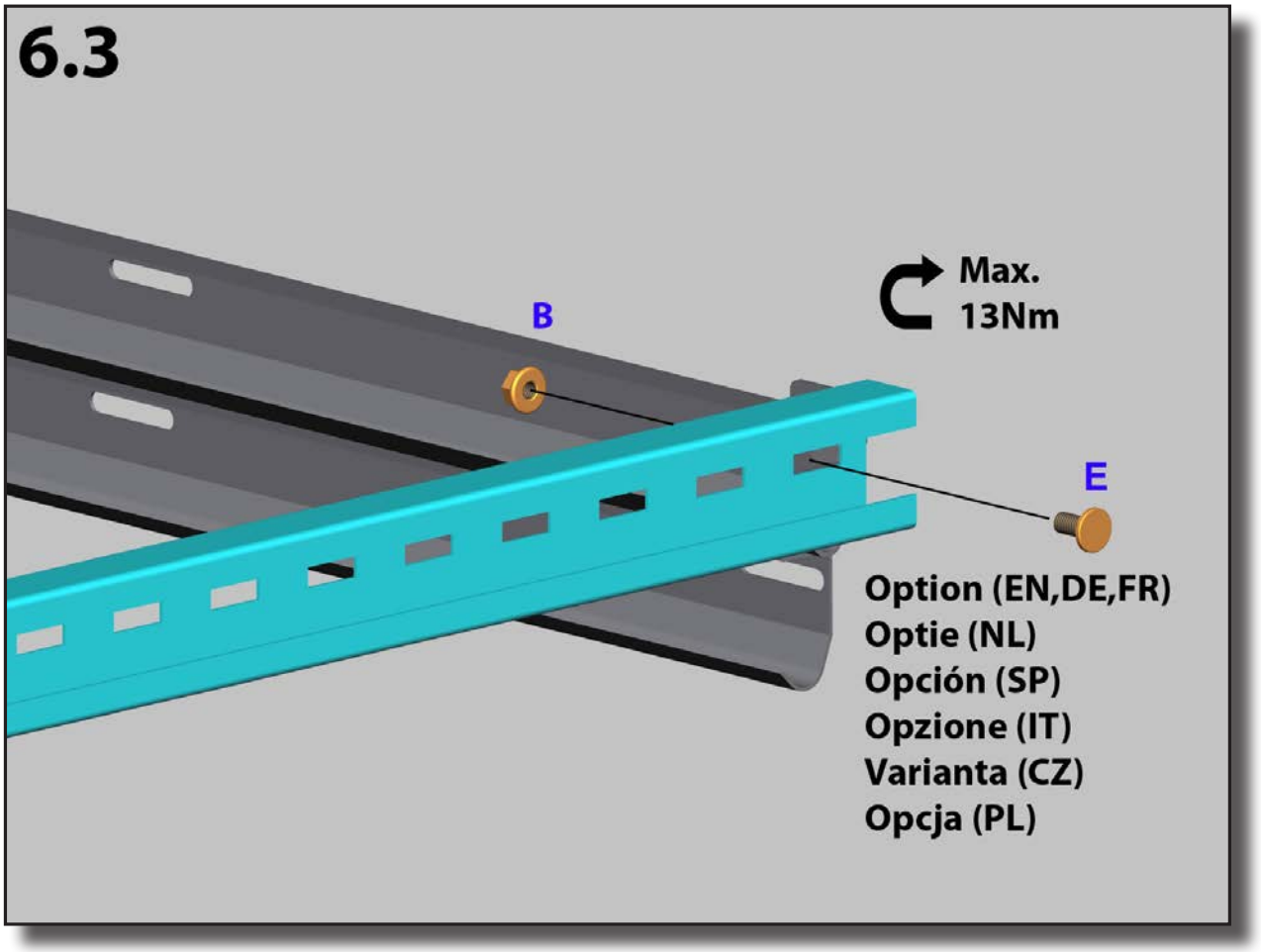
24821 = 4500mm
24822 = 6000mm


6.3
B
Max.
13Nm
E
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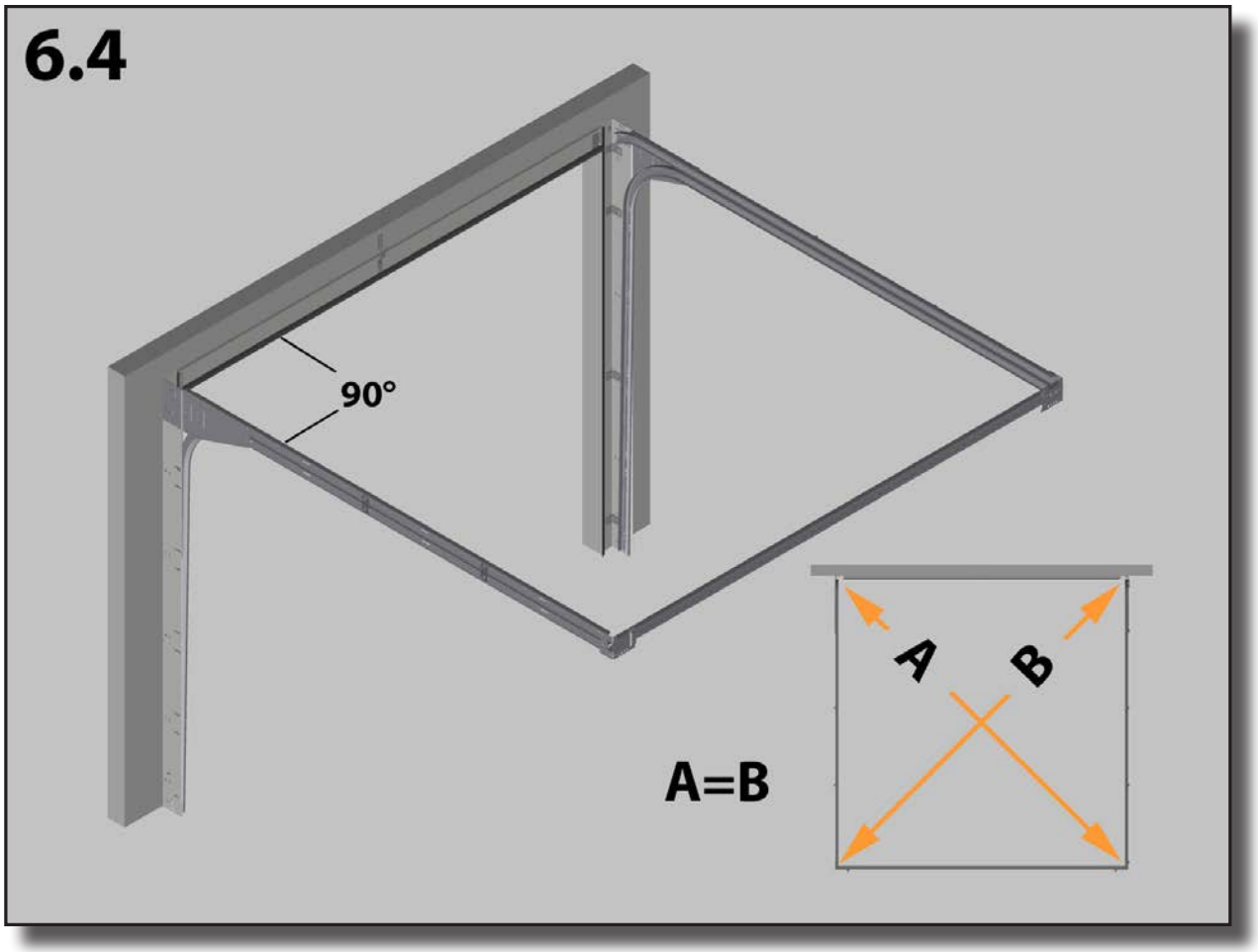
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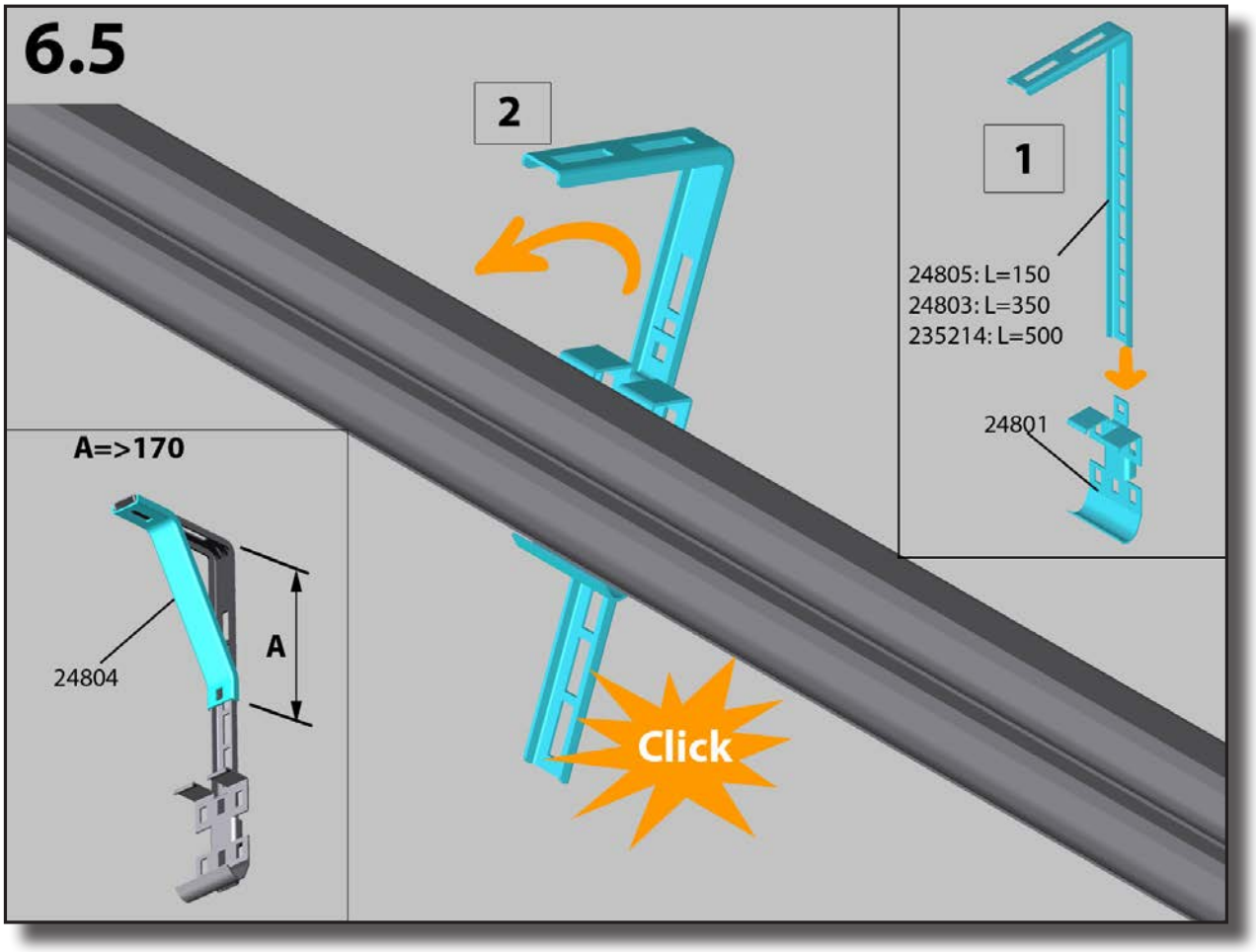
90°
A
B
A=B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2
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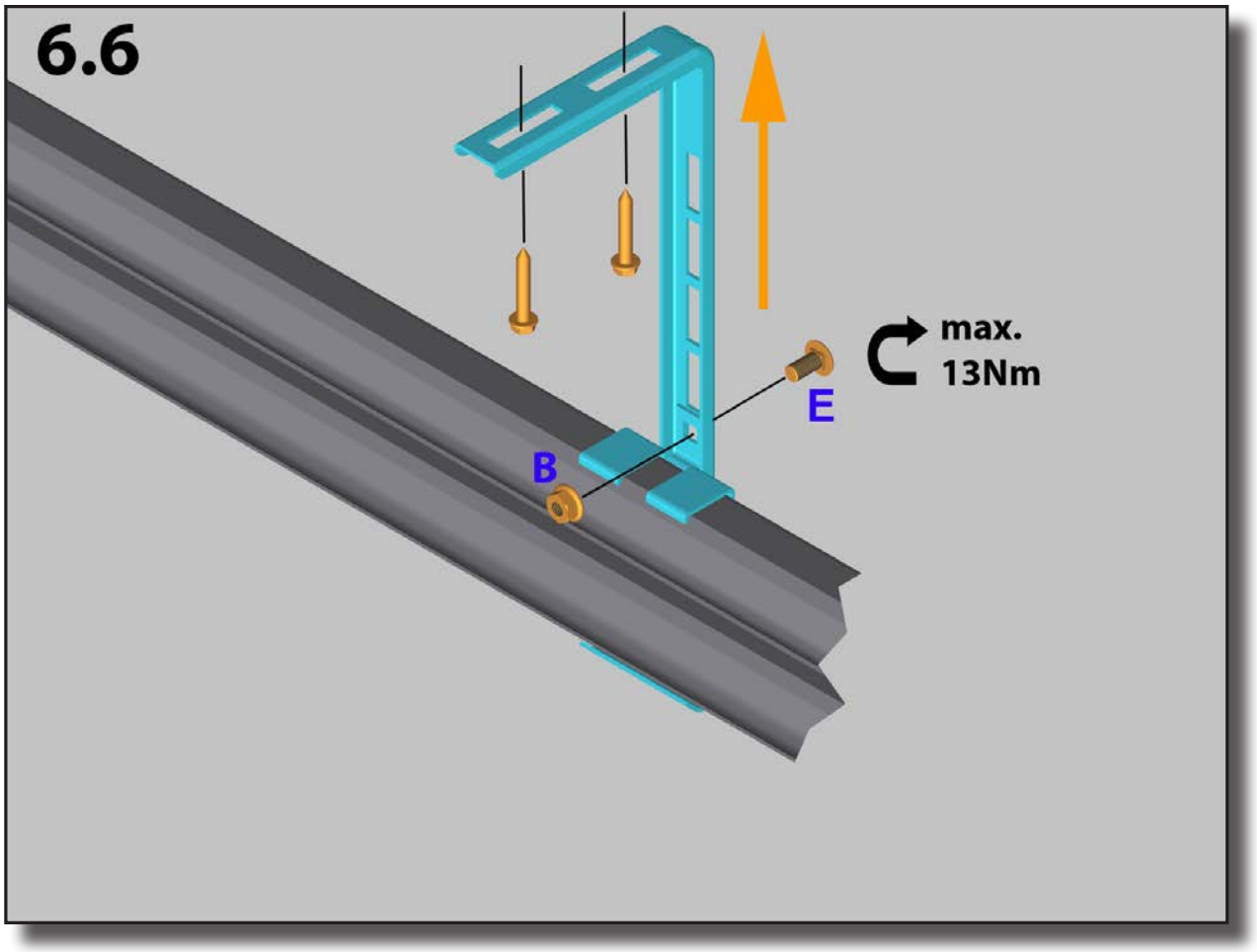
24803: L=350
235214: L=500
24801
A=>170
24804
A
Click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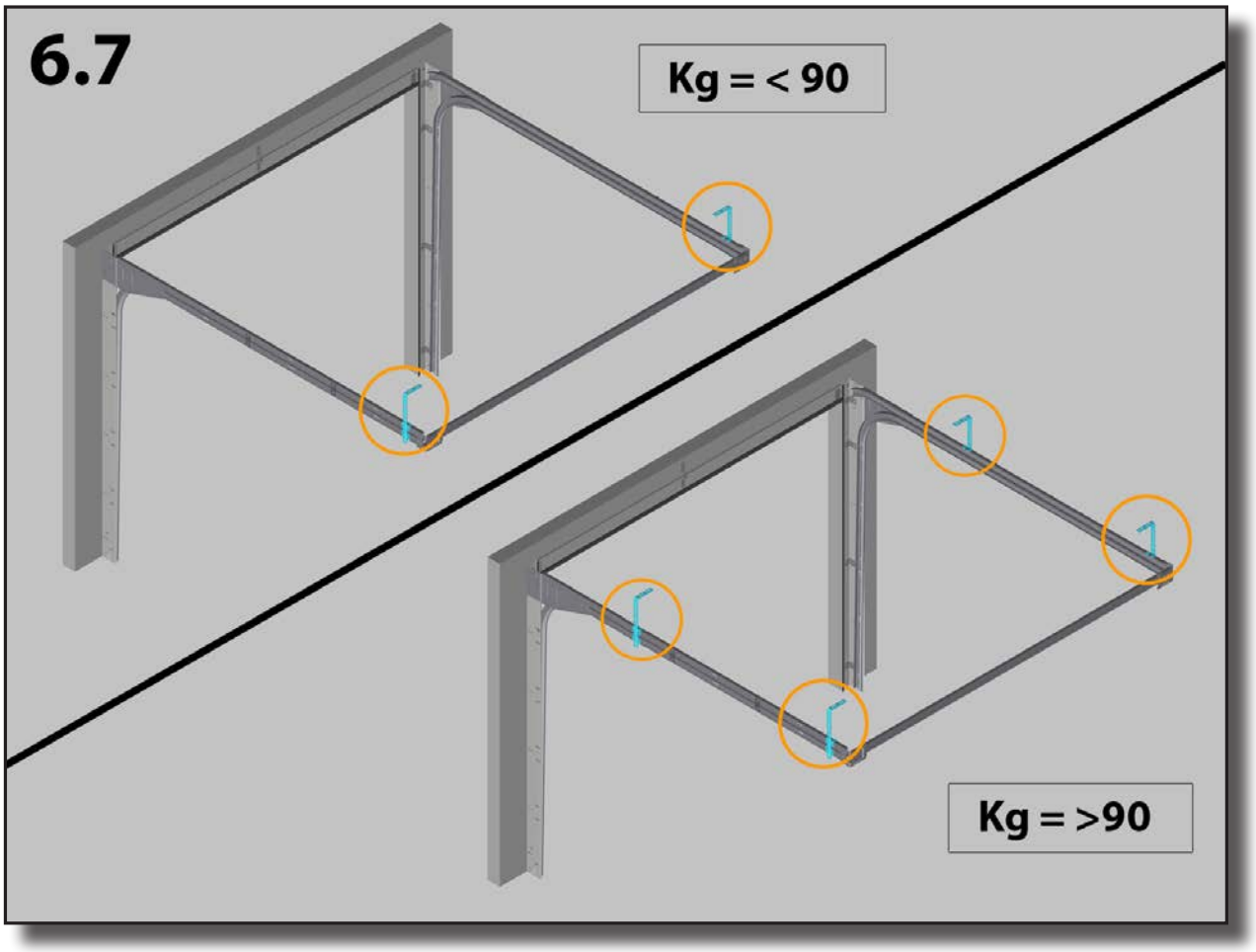
E
B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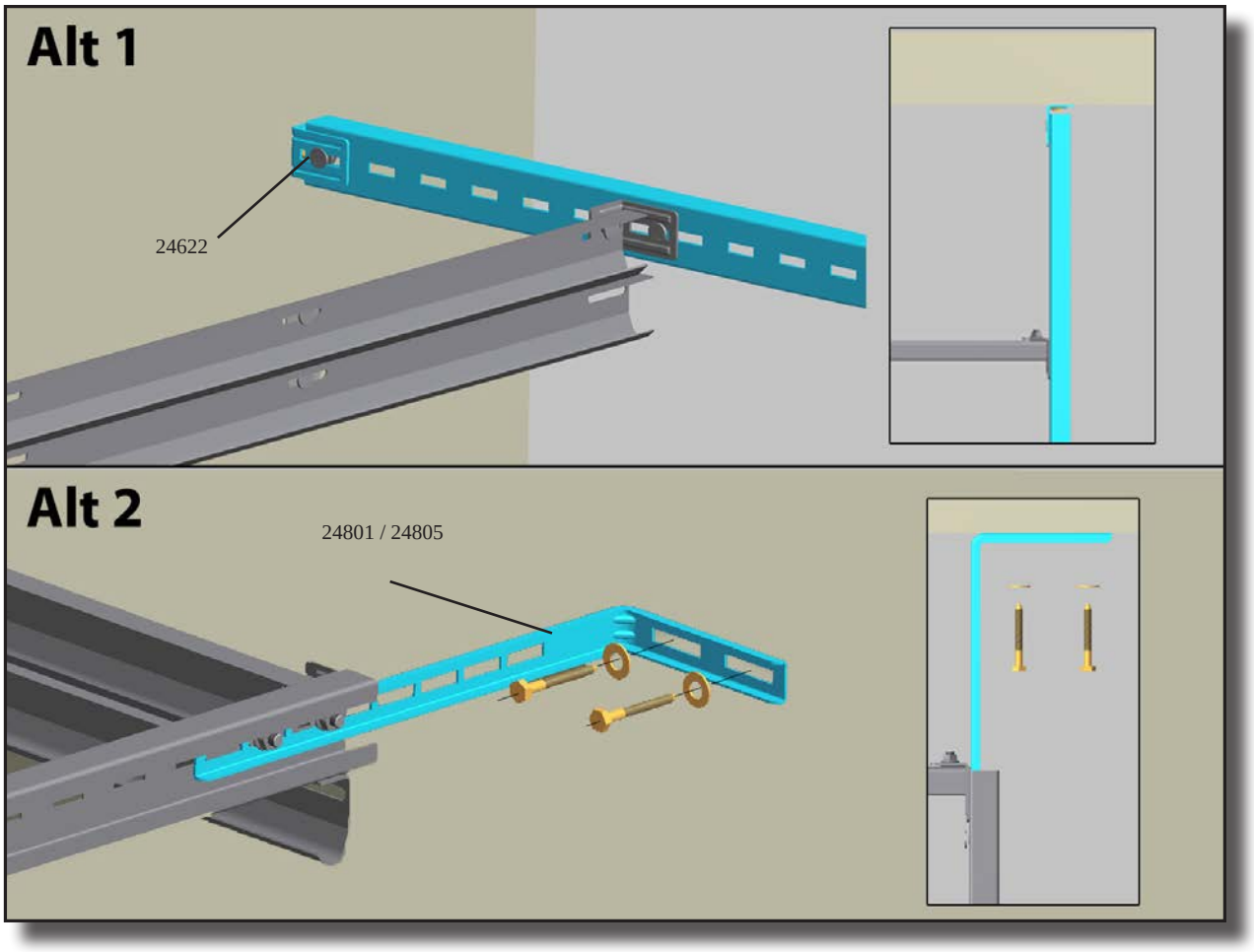
Kg = < 90
Kg = >90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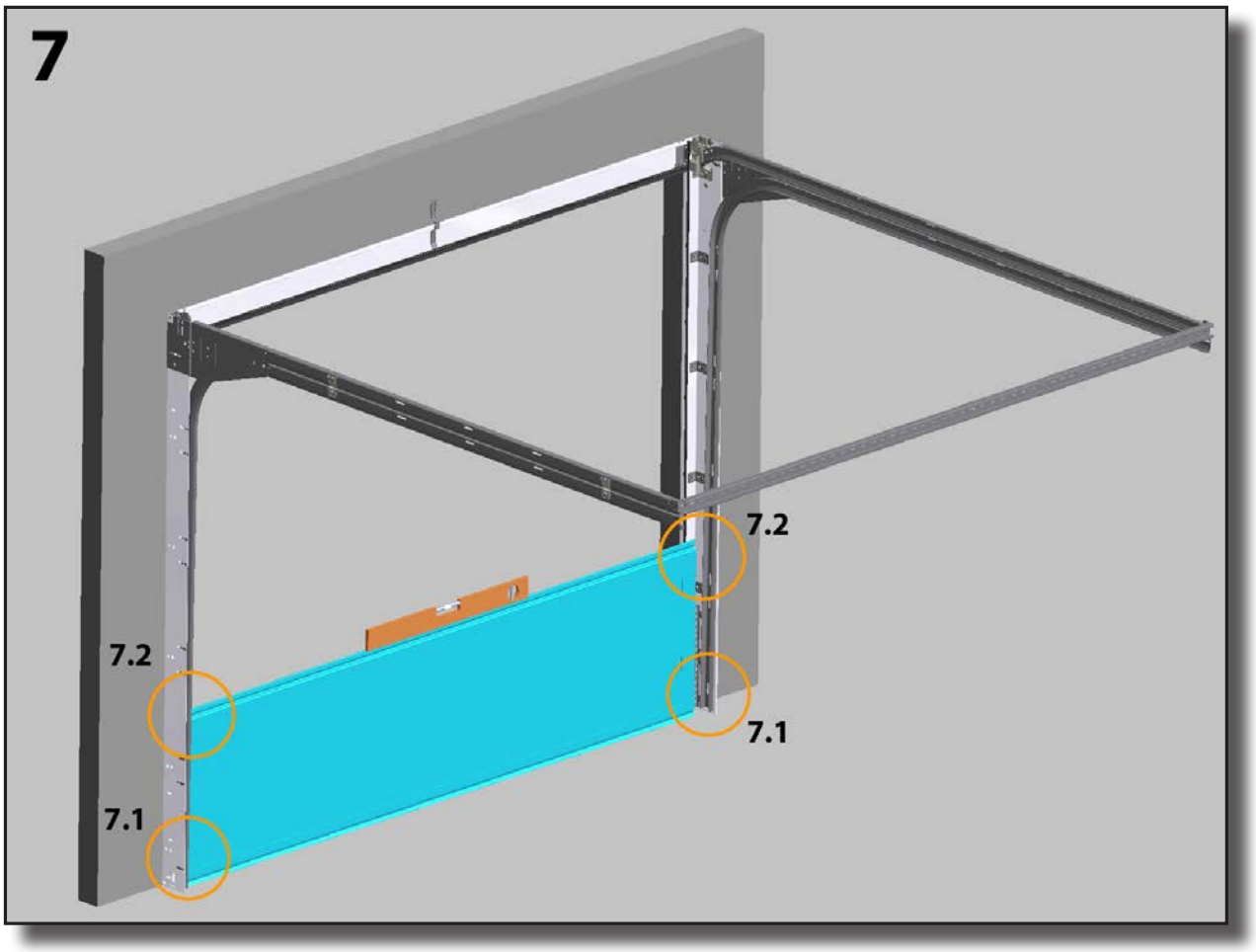
Alt 2
24801 / 24805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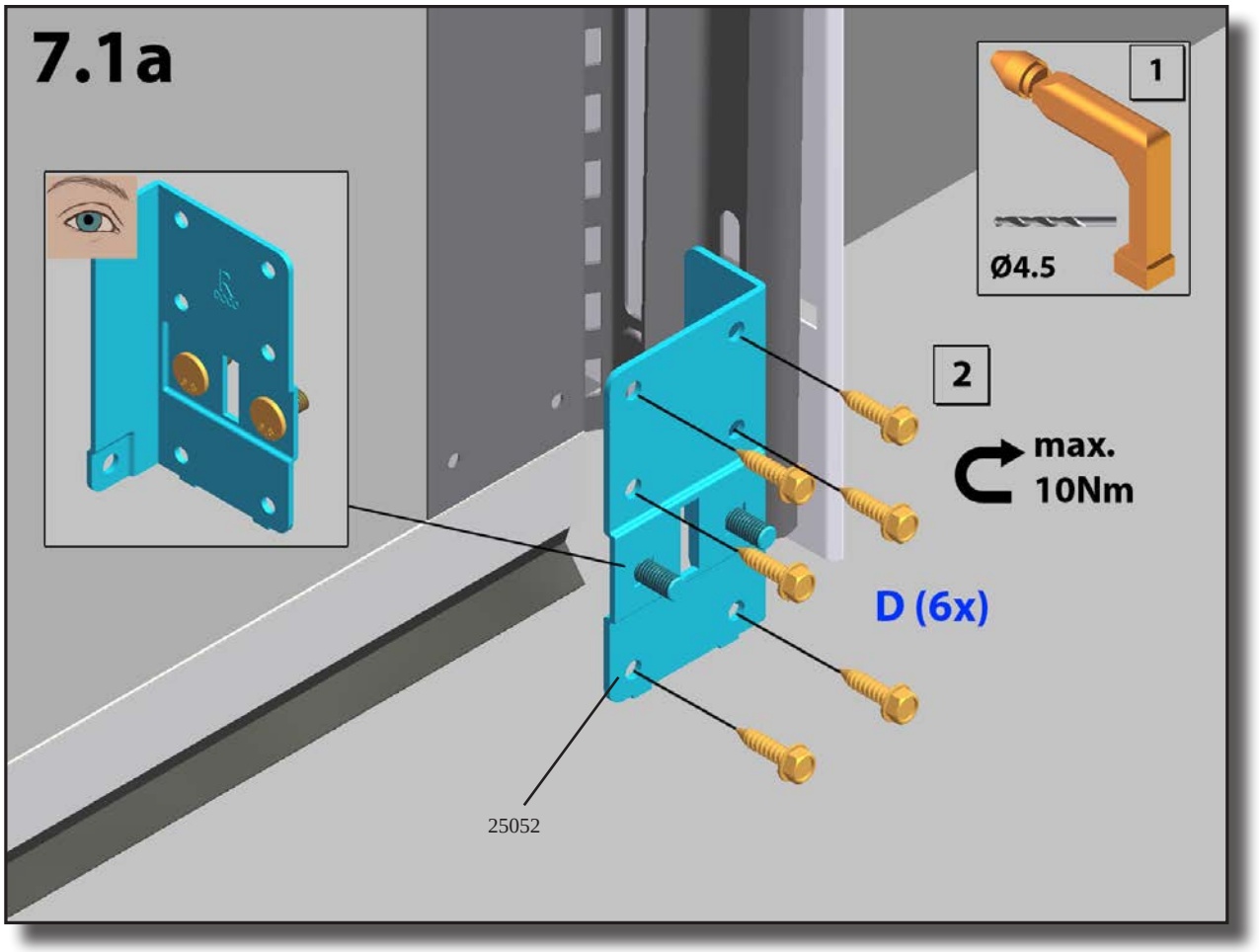
7.2
7.1
7.1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Ø4.5
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D (6x)
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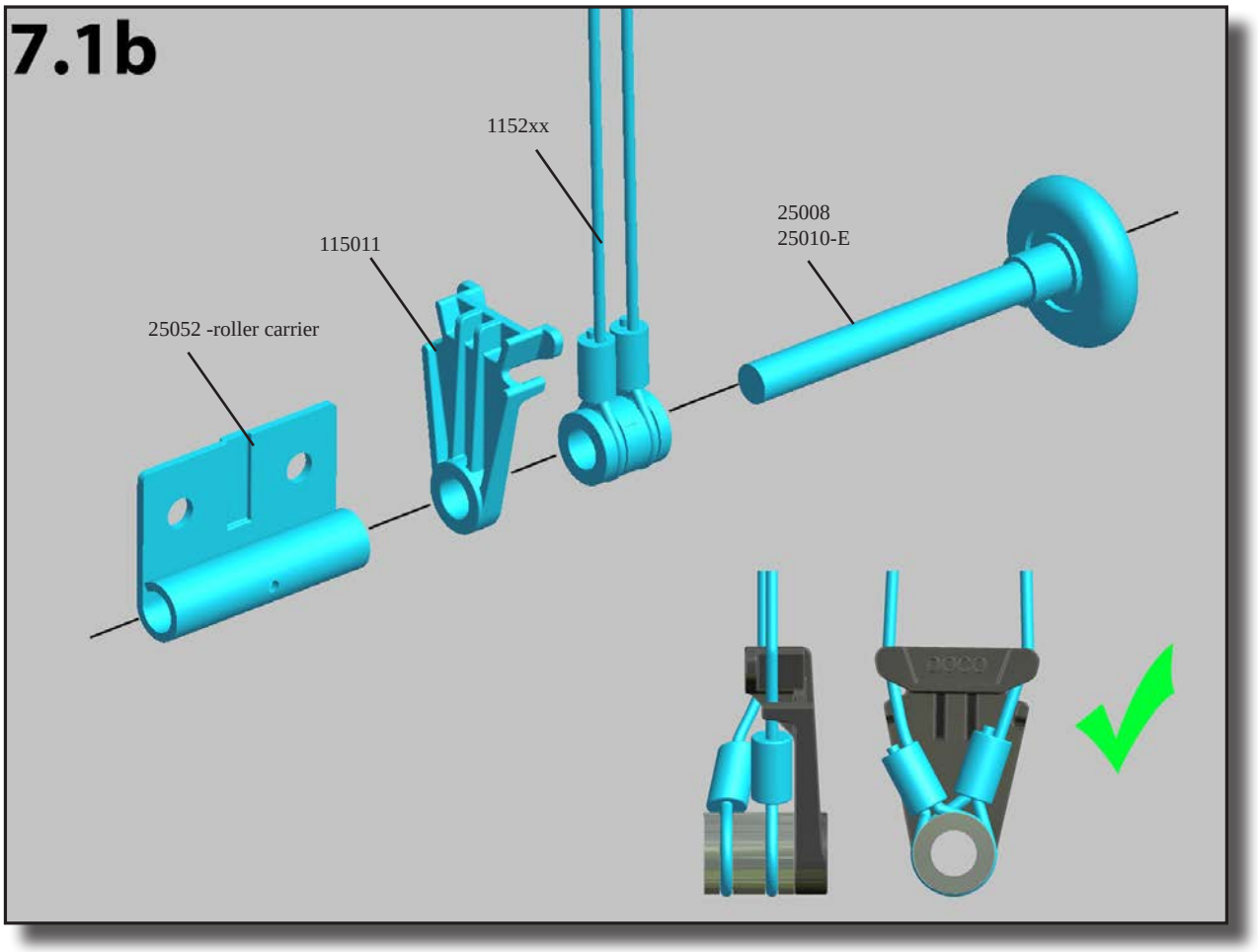
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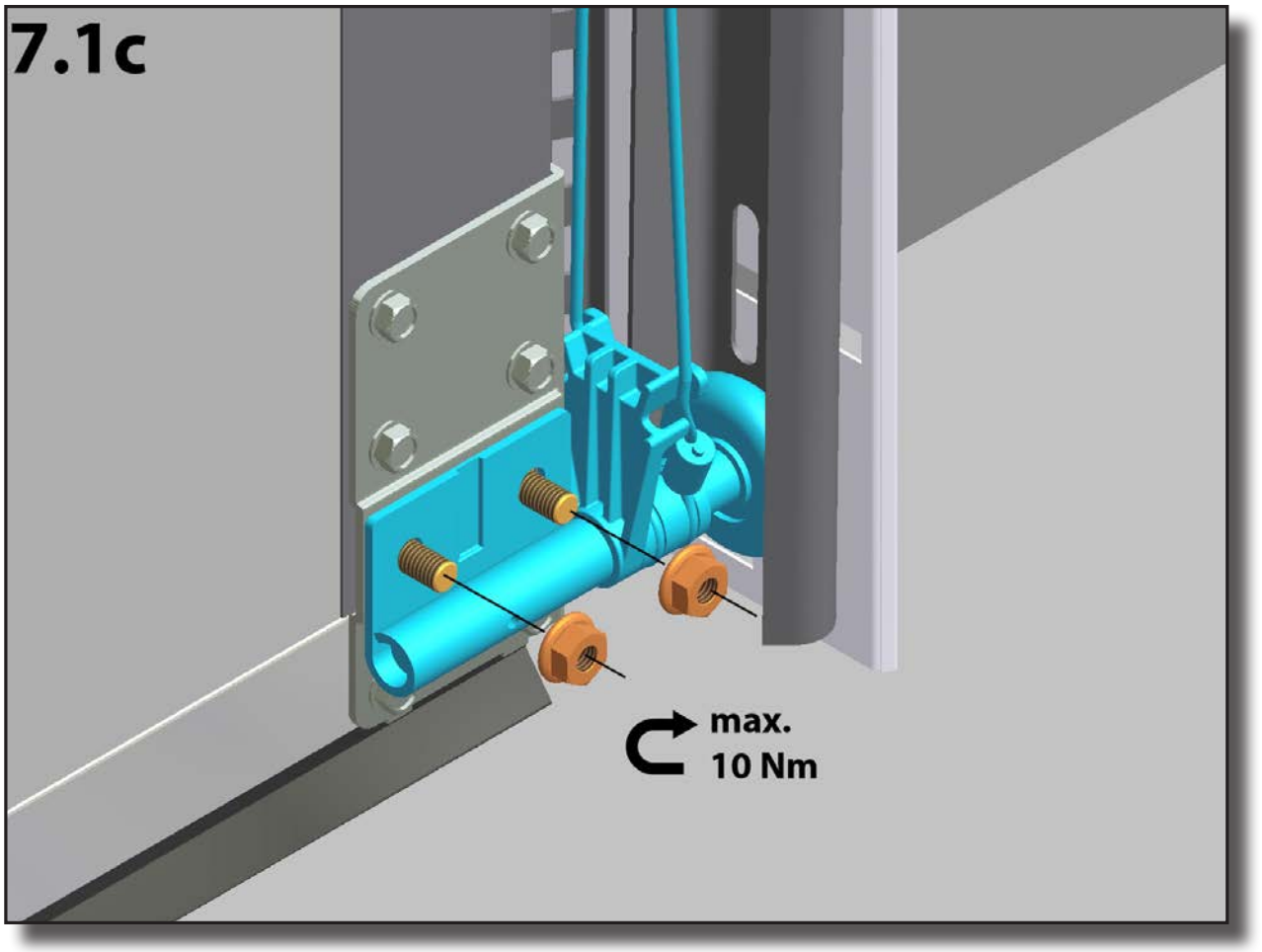
1152xx
115011
25008
25010-E
25052 -roller carrier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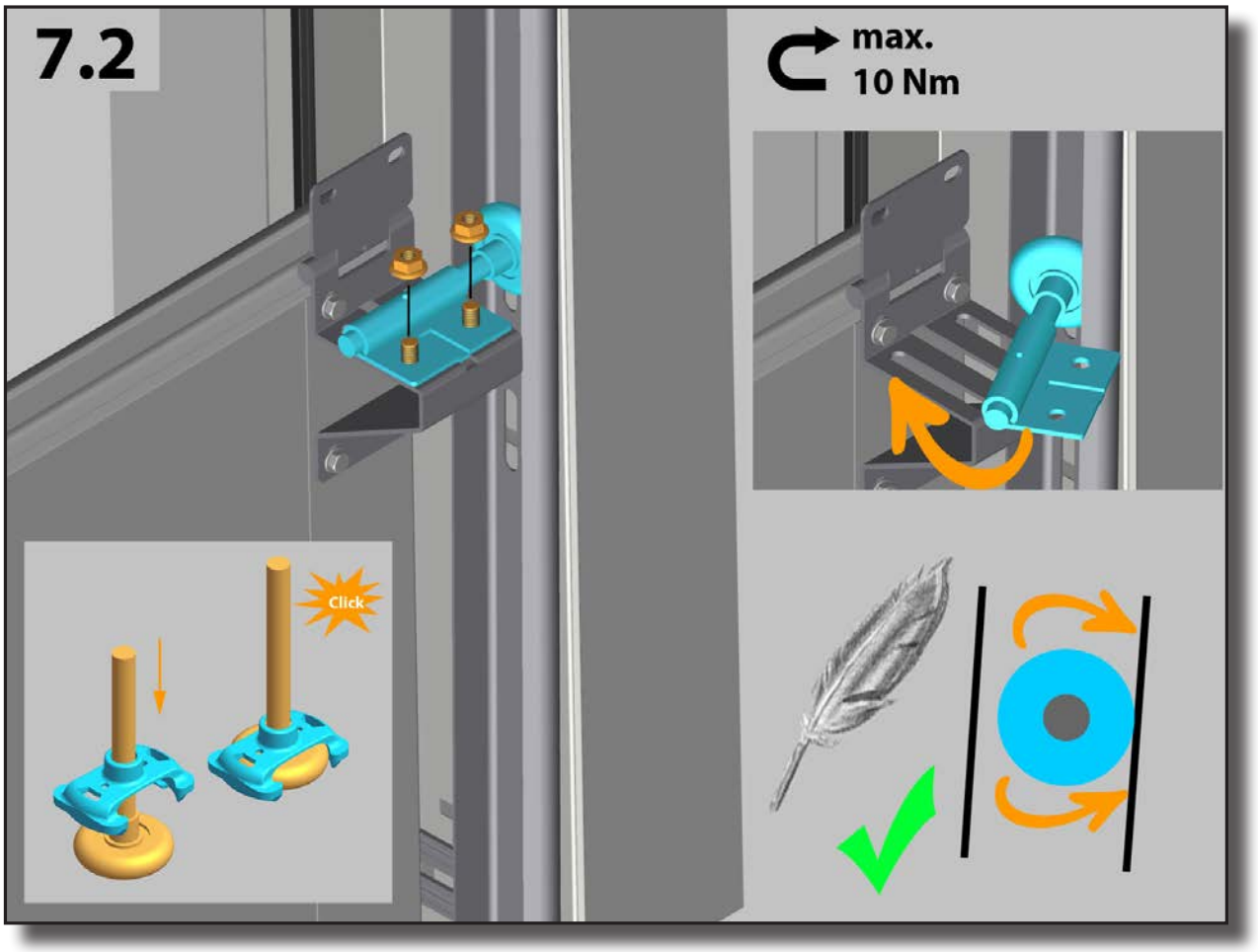
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max.
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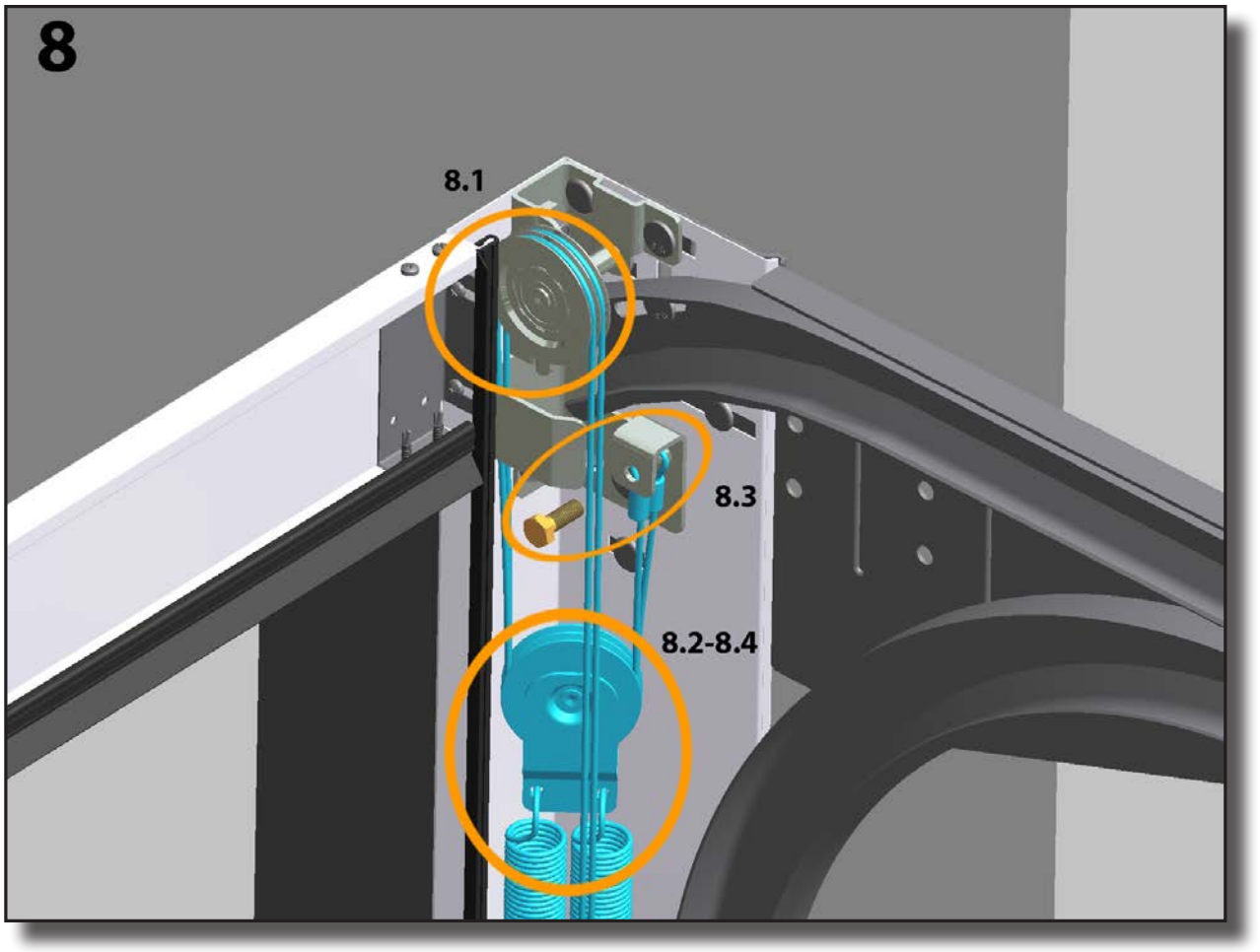
Click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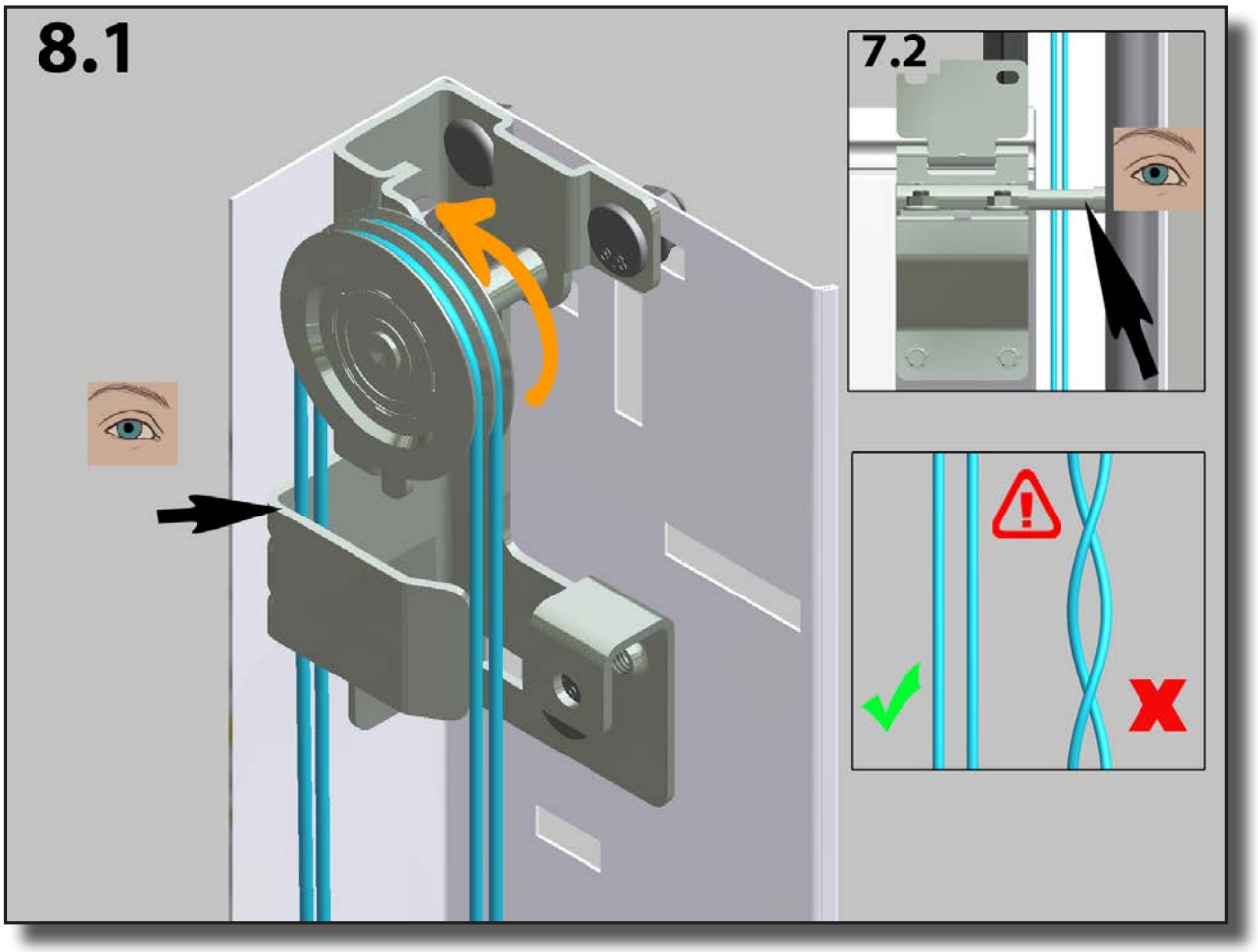
8.2-8.4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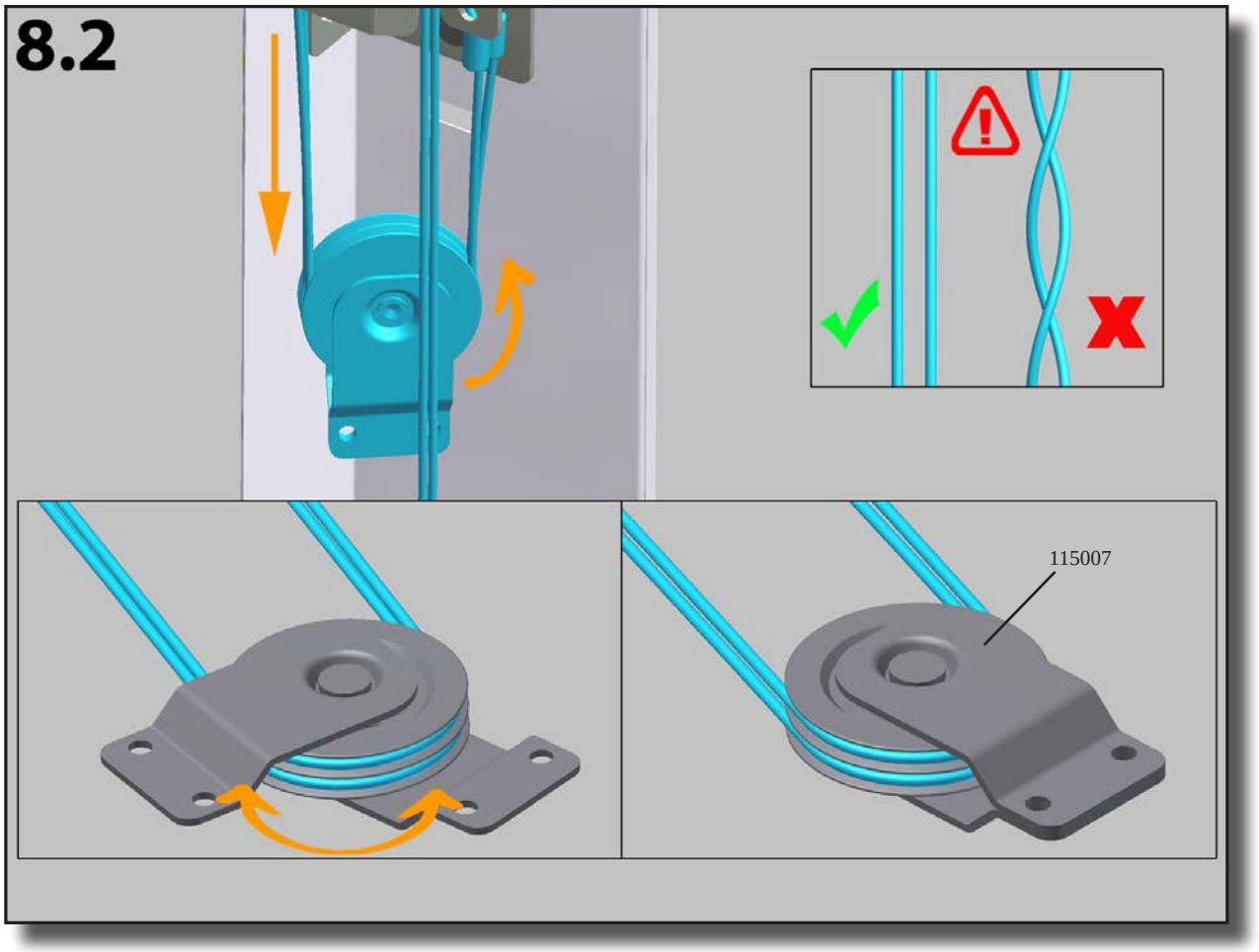
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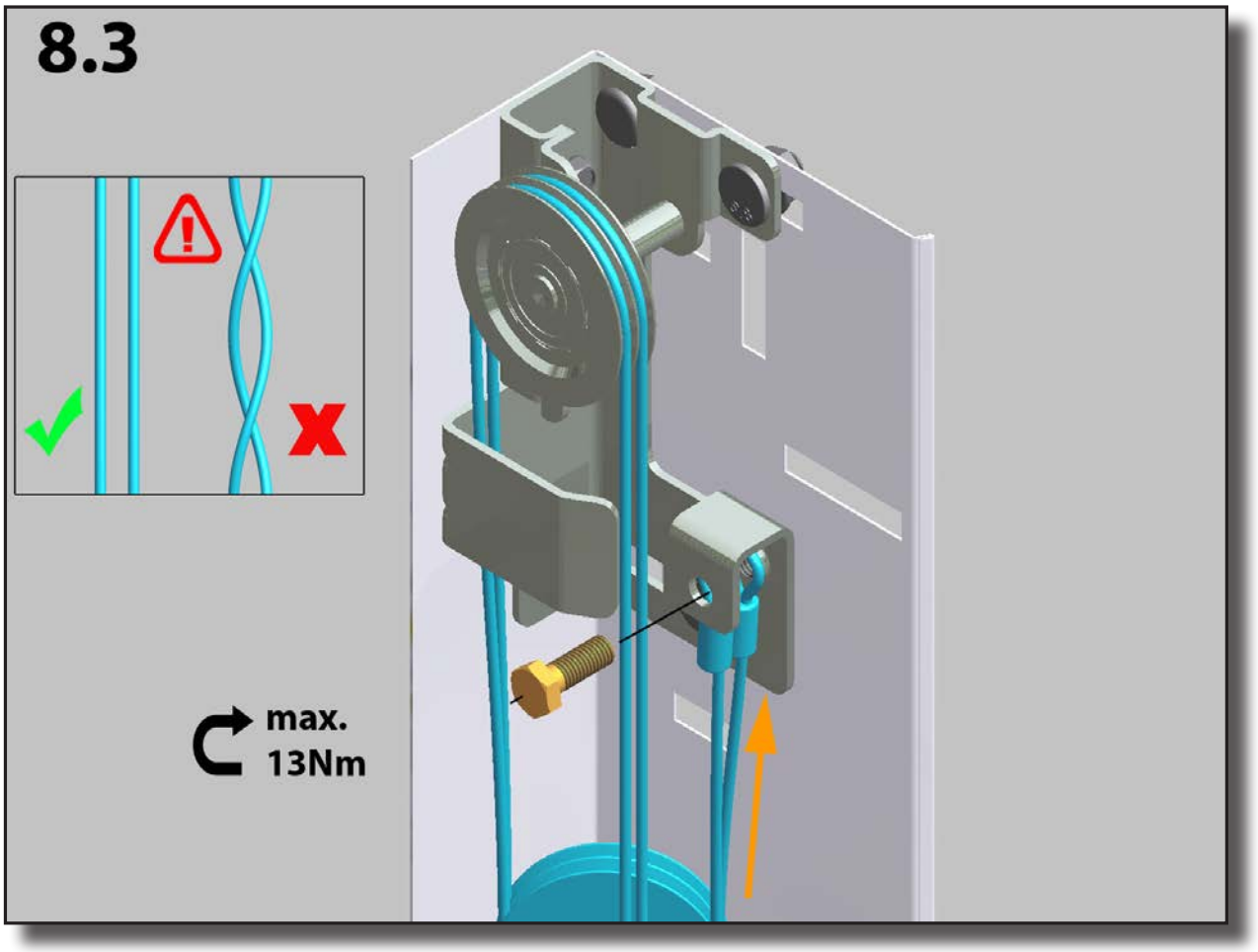
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max.
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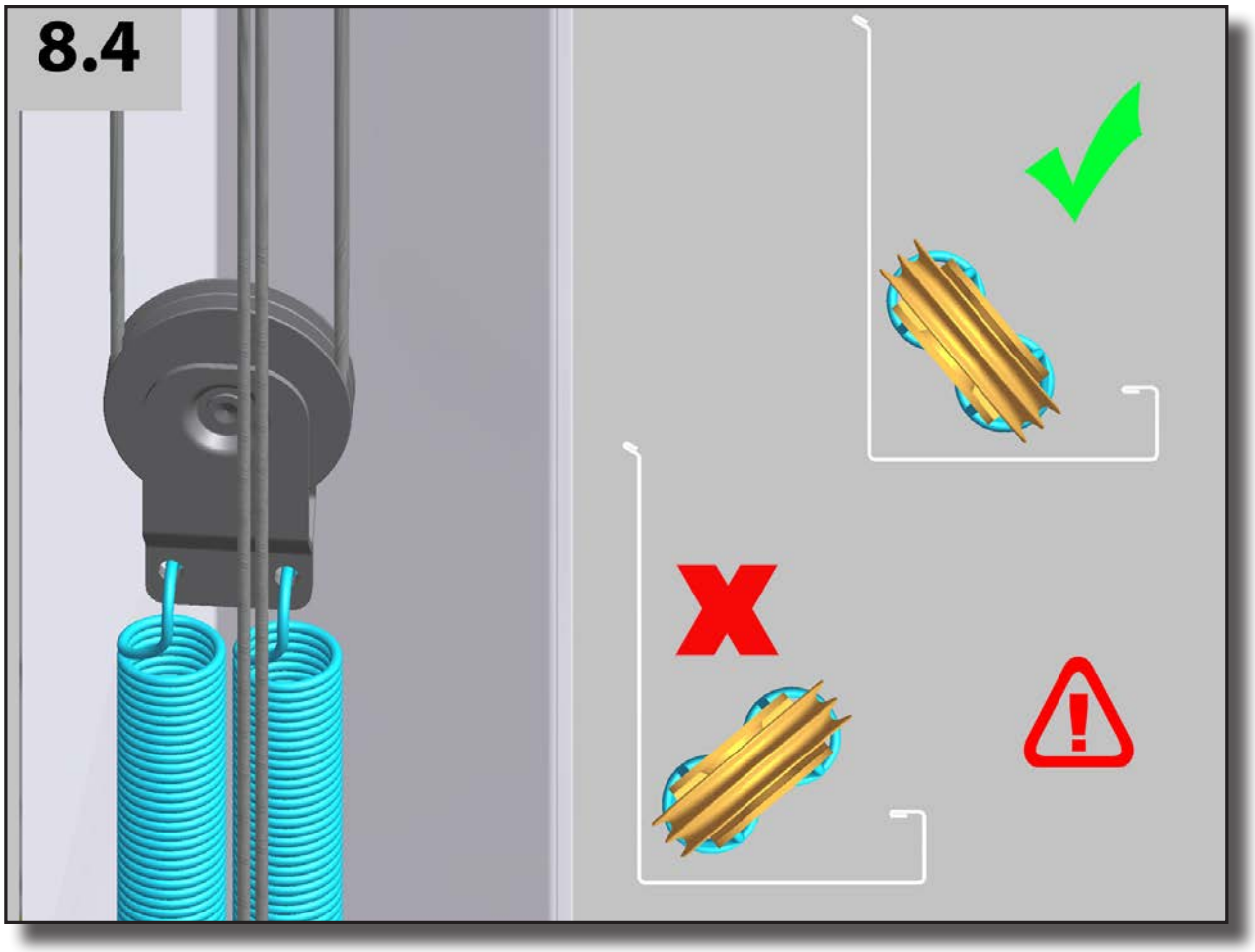
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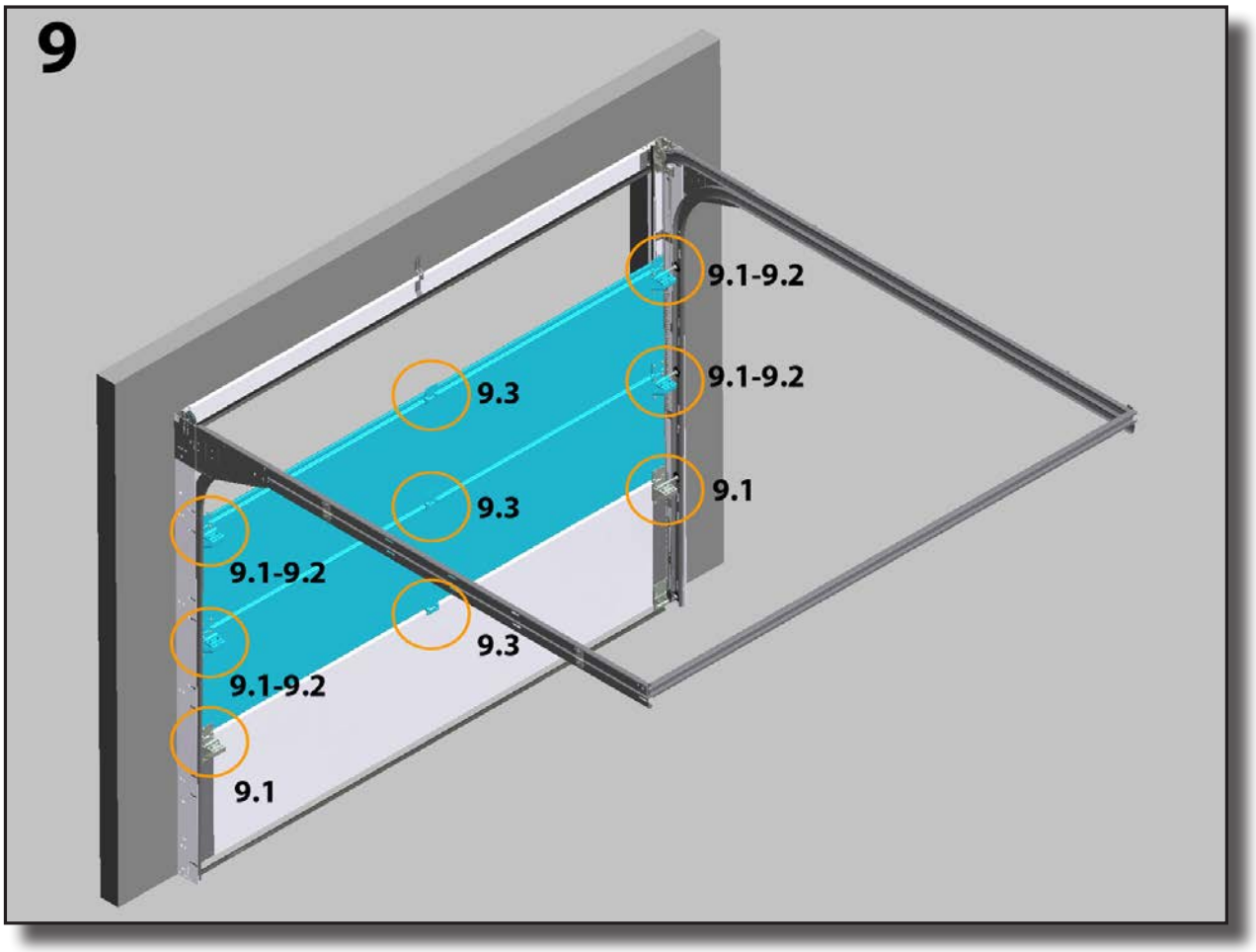
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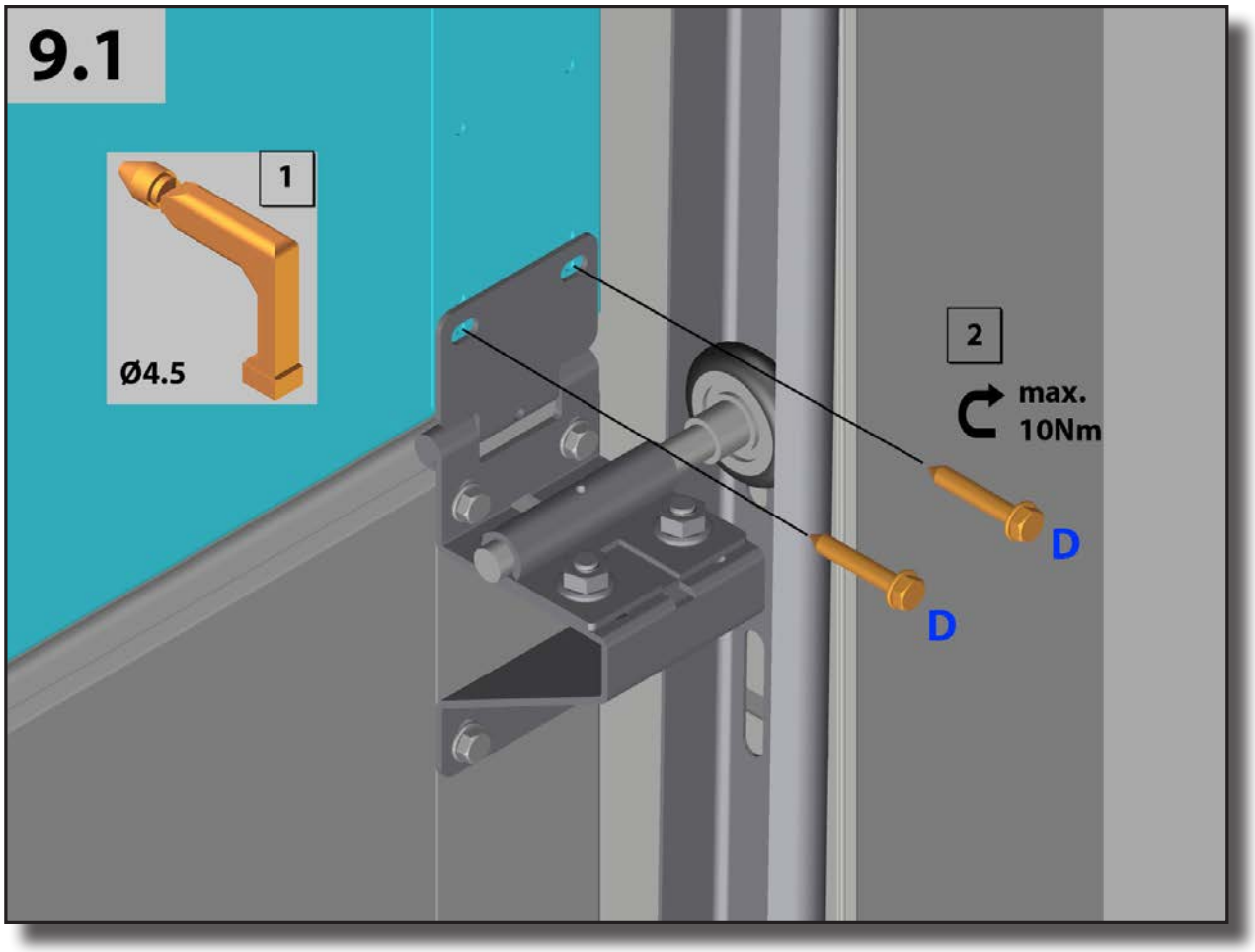
9.1-9.2
9.3
9.1
9.3
9.1-9.2
9.3
9.1-9.2
9.1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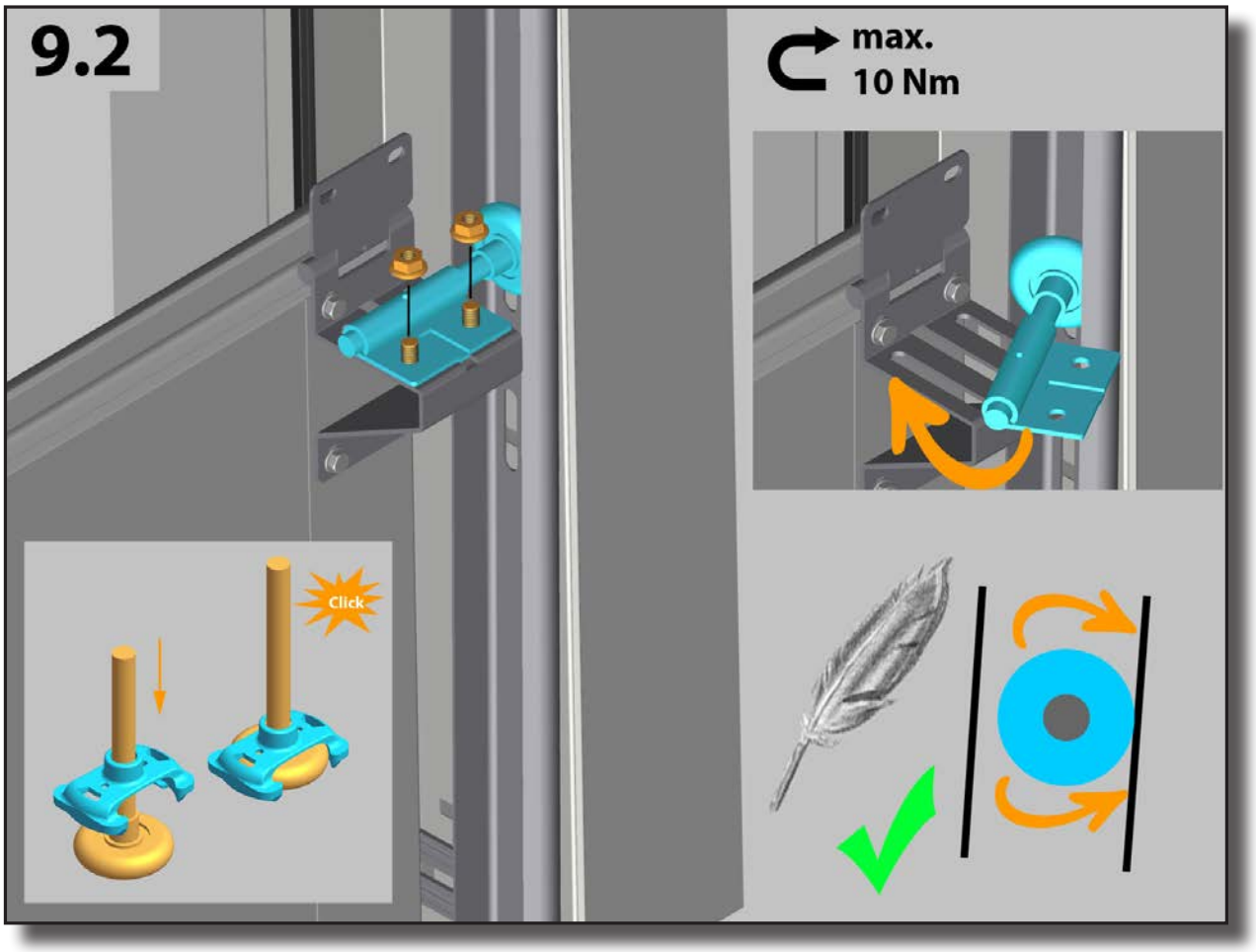
1
Ø4.5
2
max.
10Nm
D
D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max.
10 Nm
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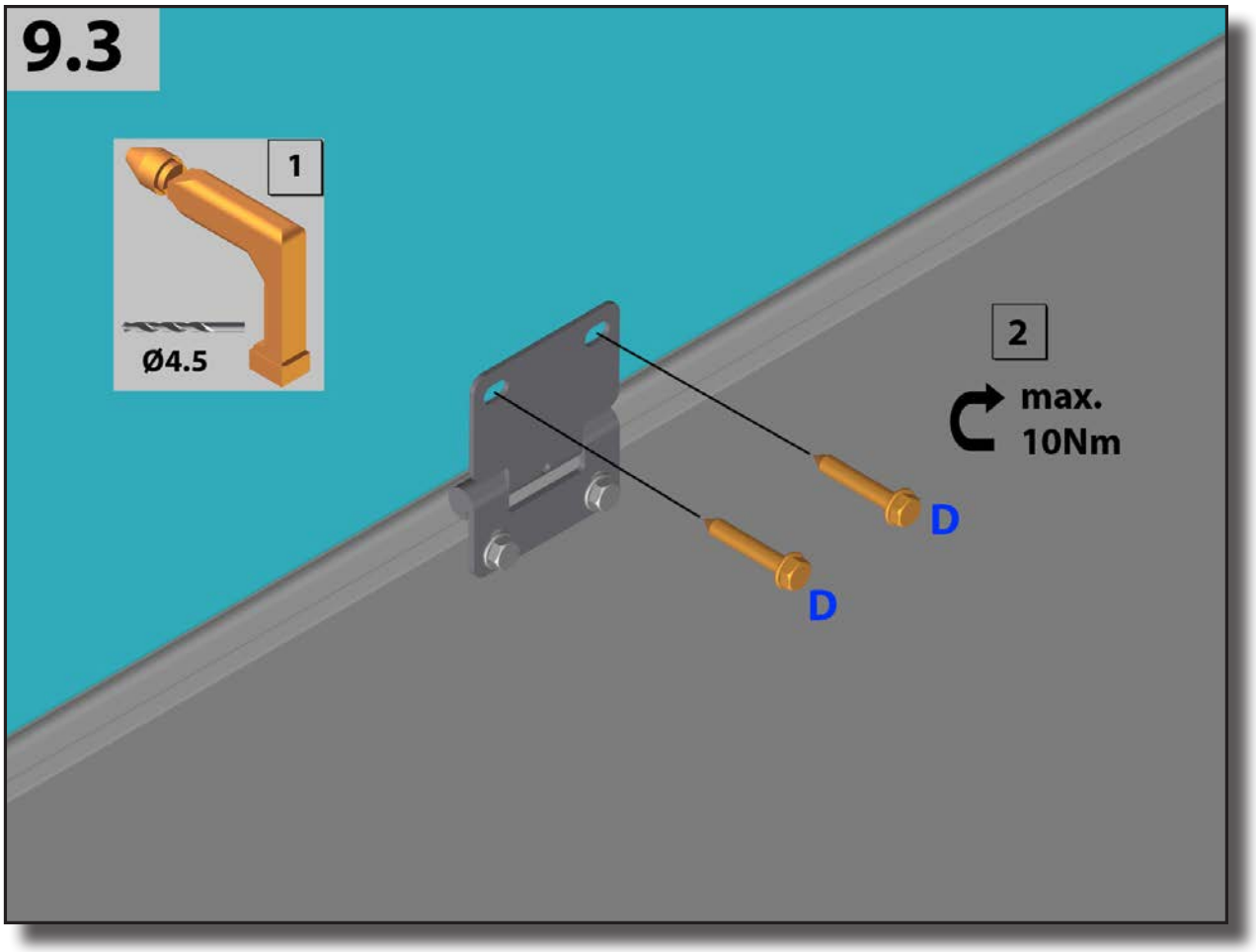
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D
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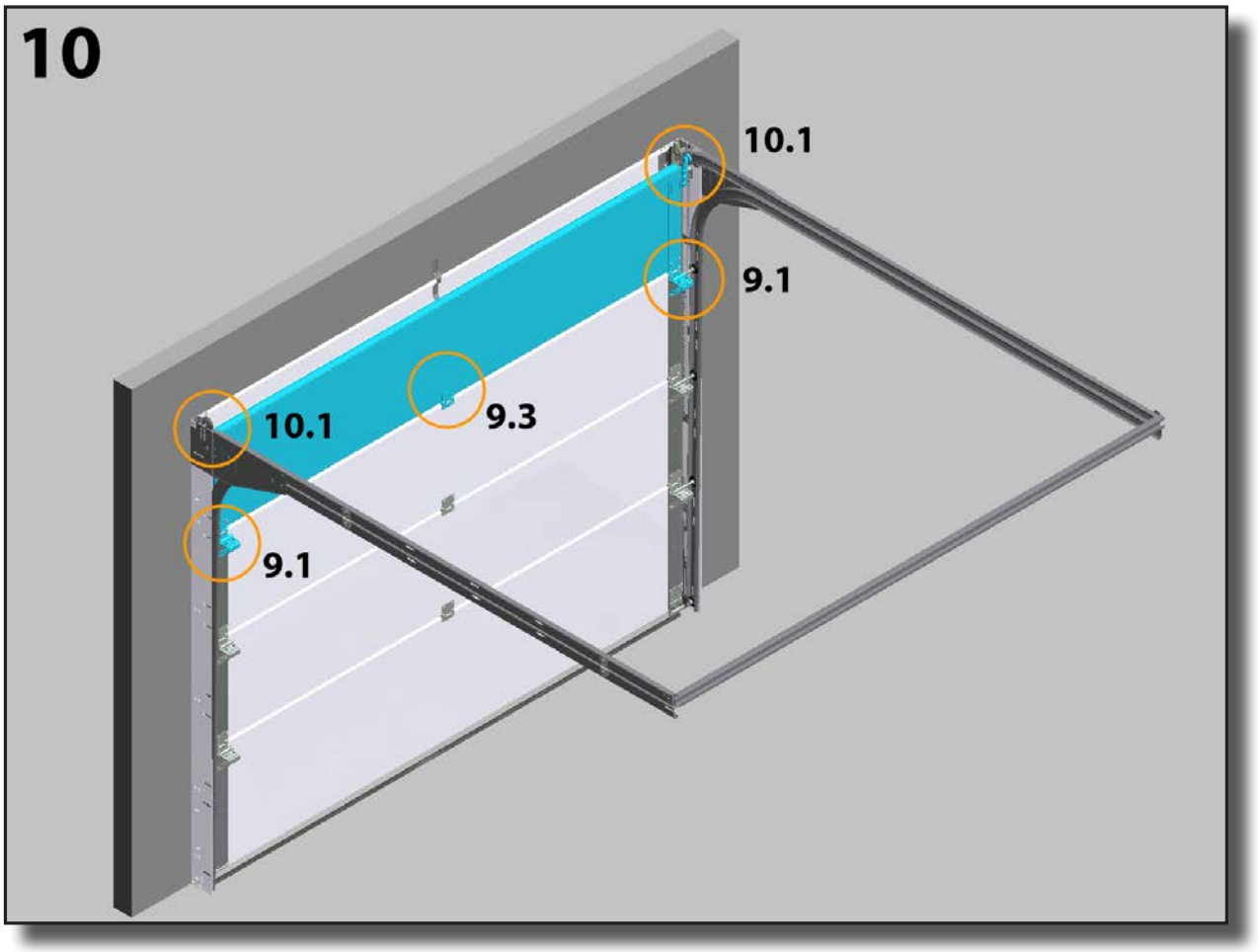
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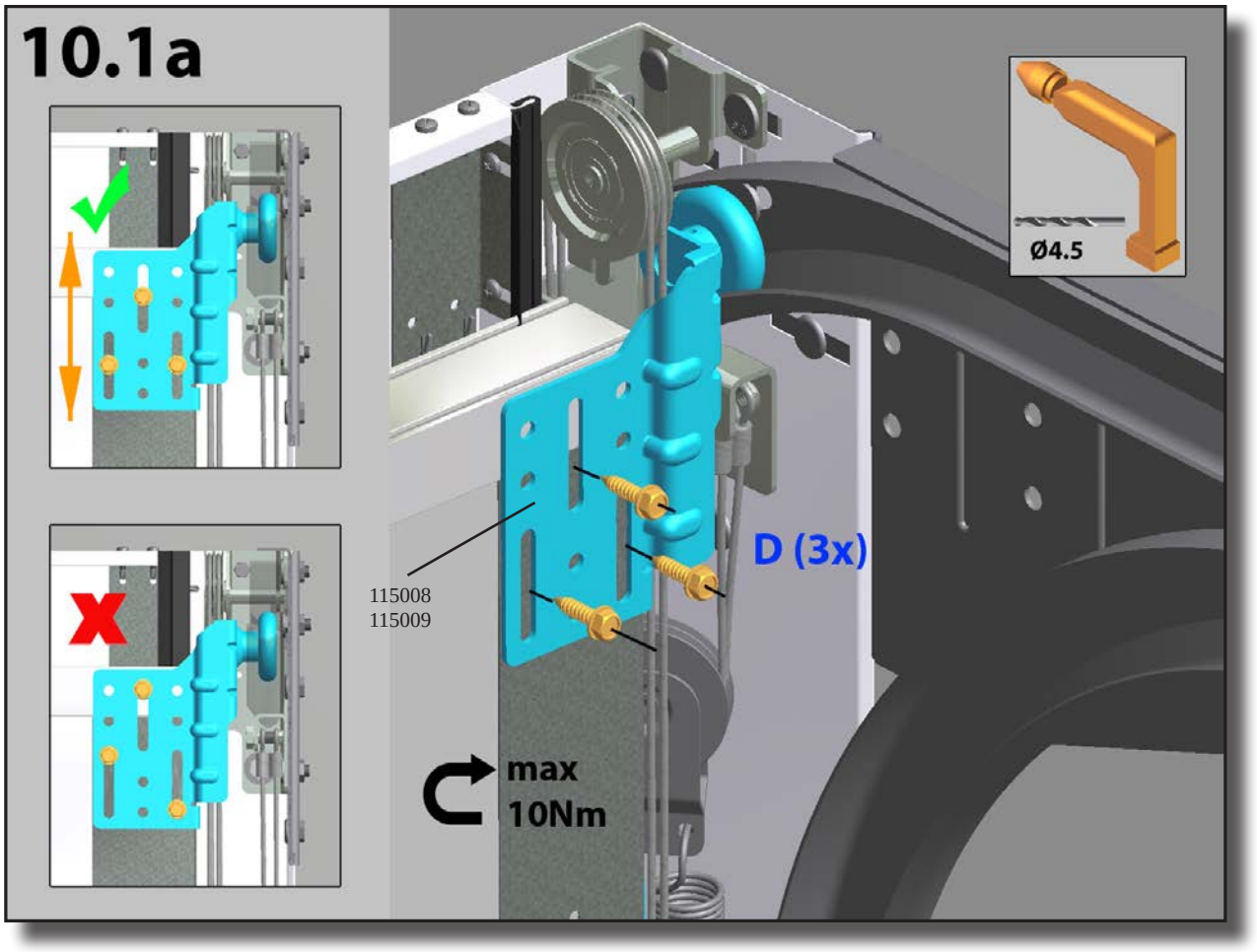
9.1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D (3x)
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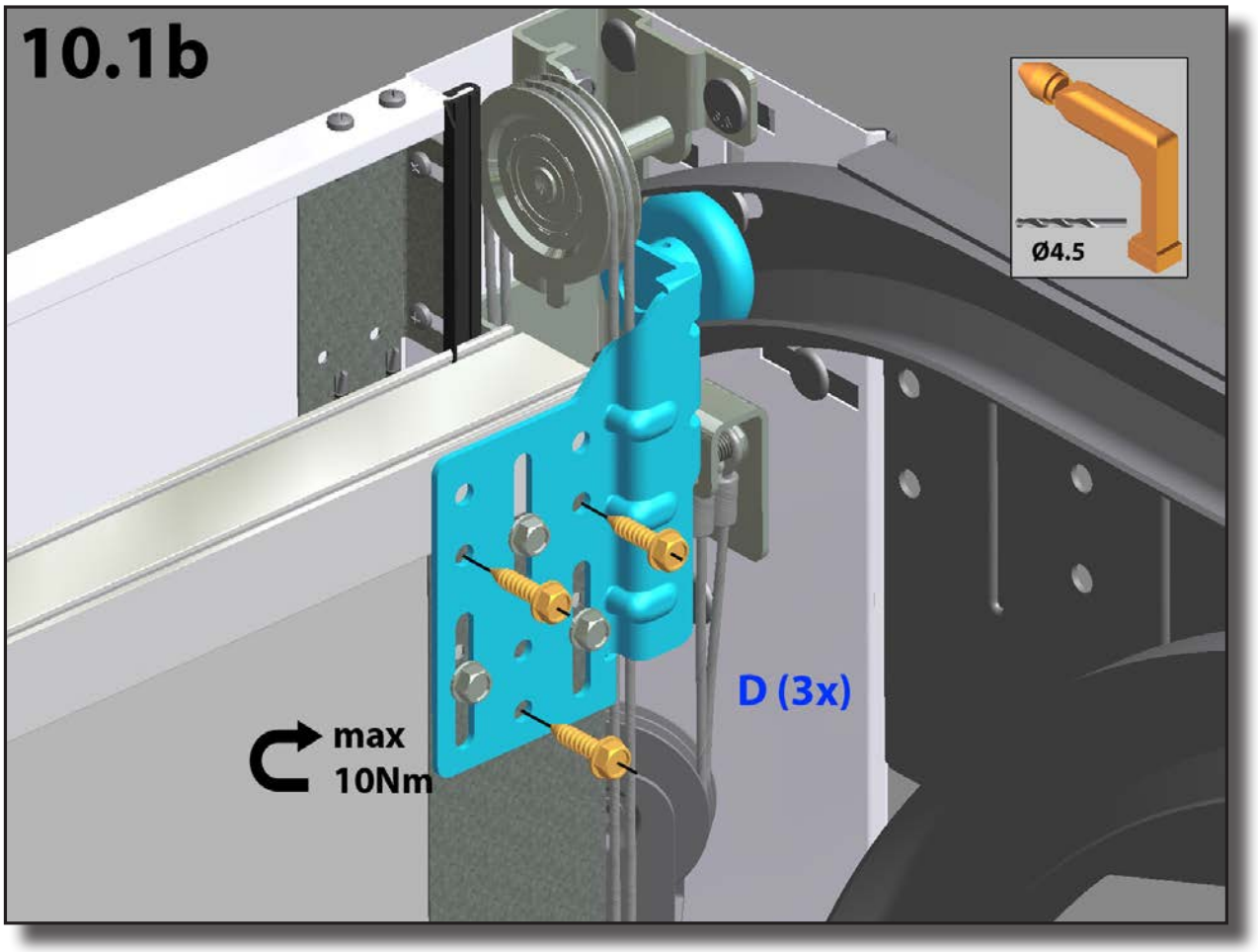
115009
max
10Nm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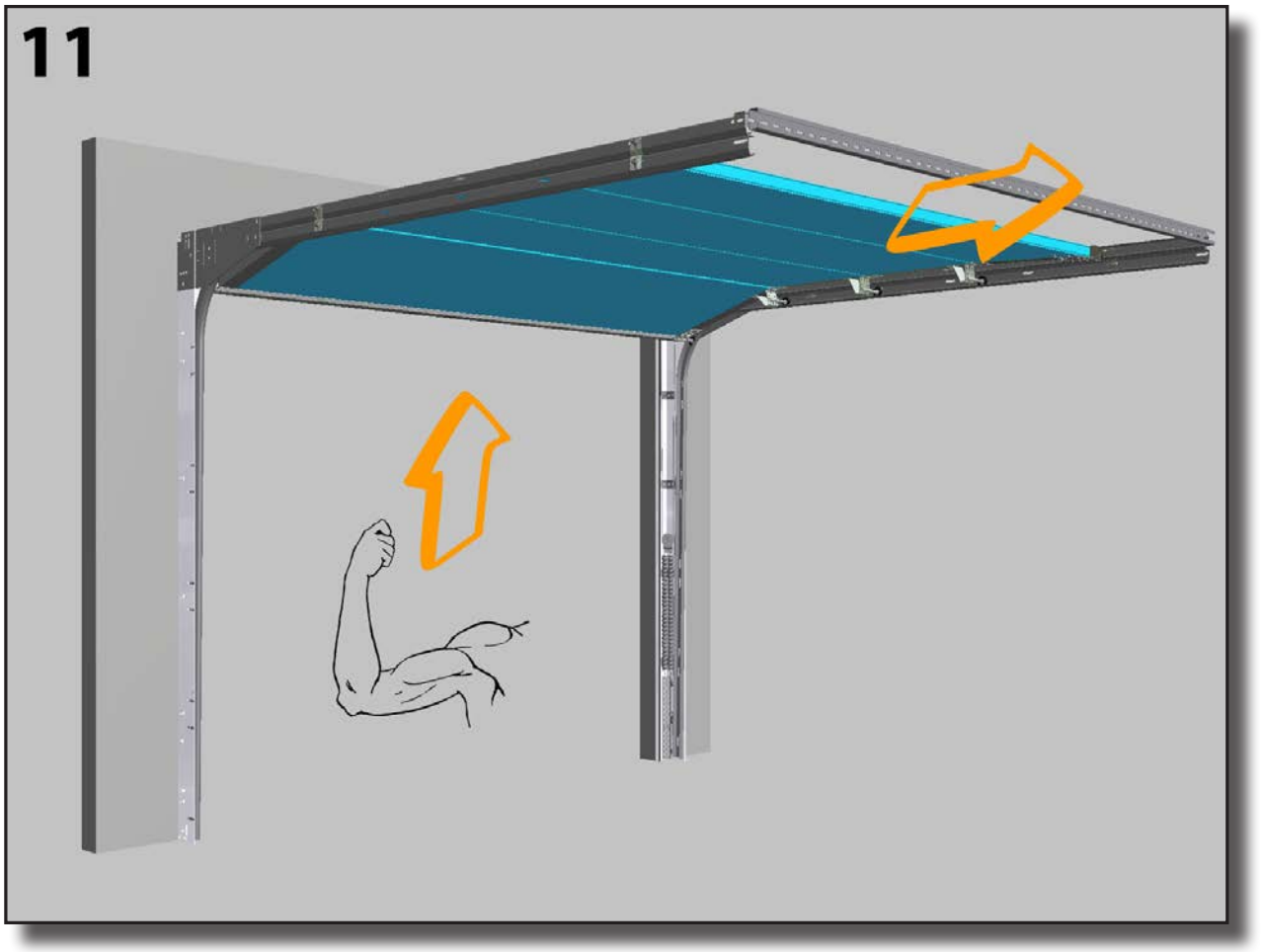
max
10Nm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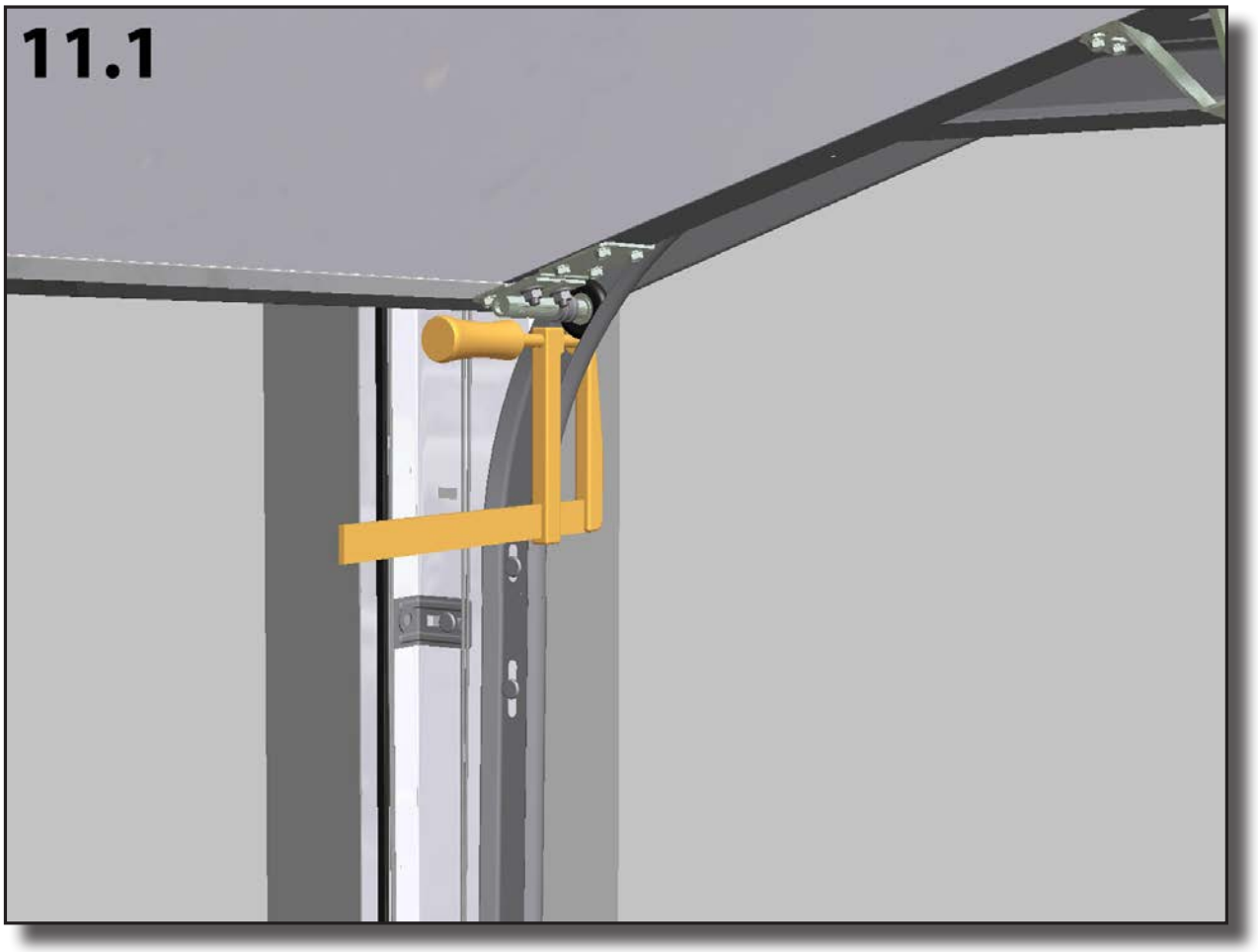
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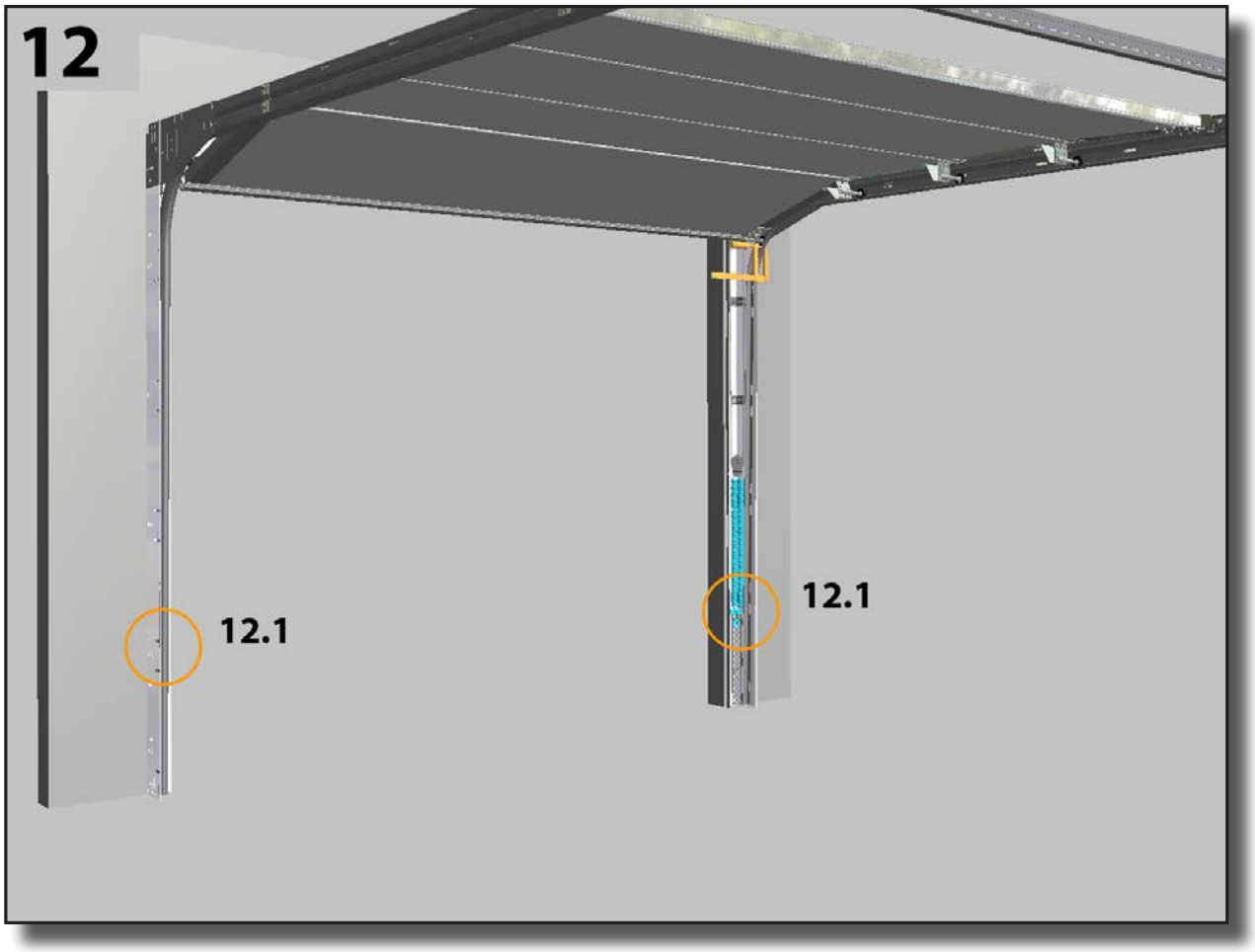
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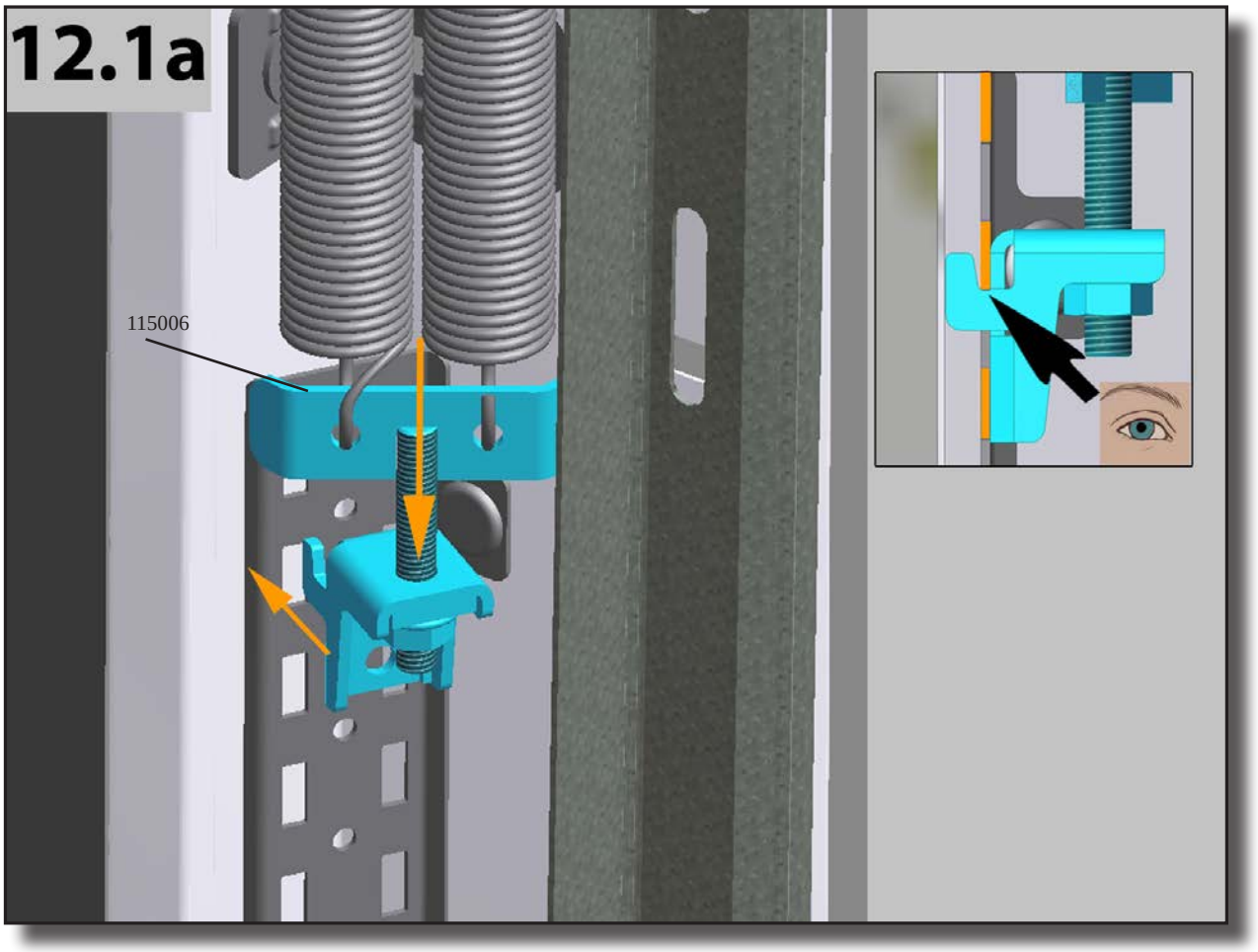
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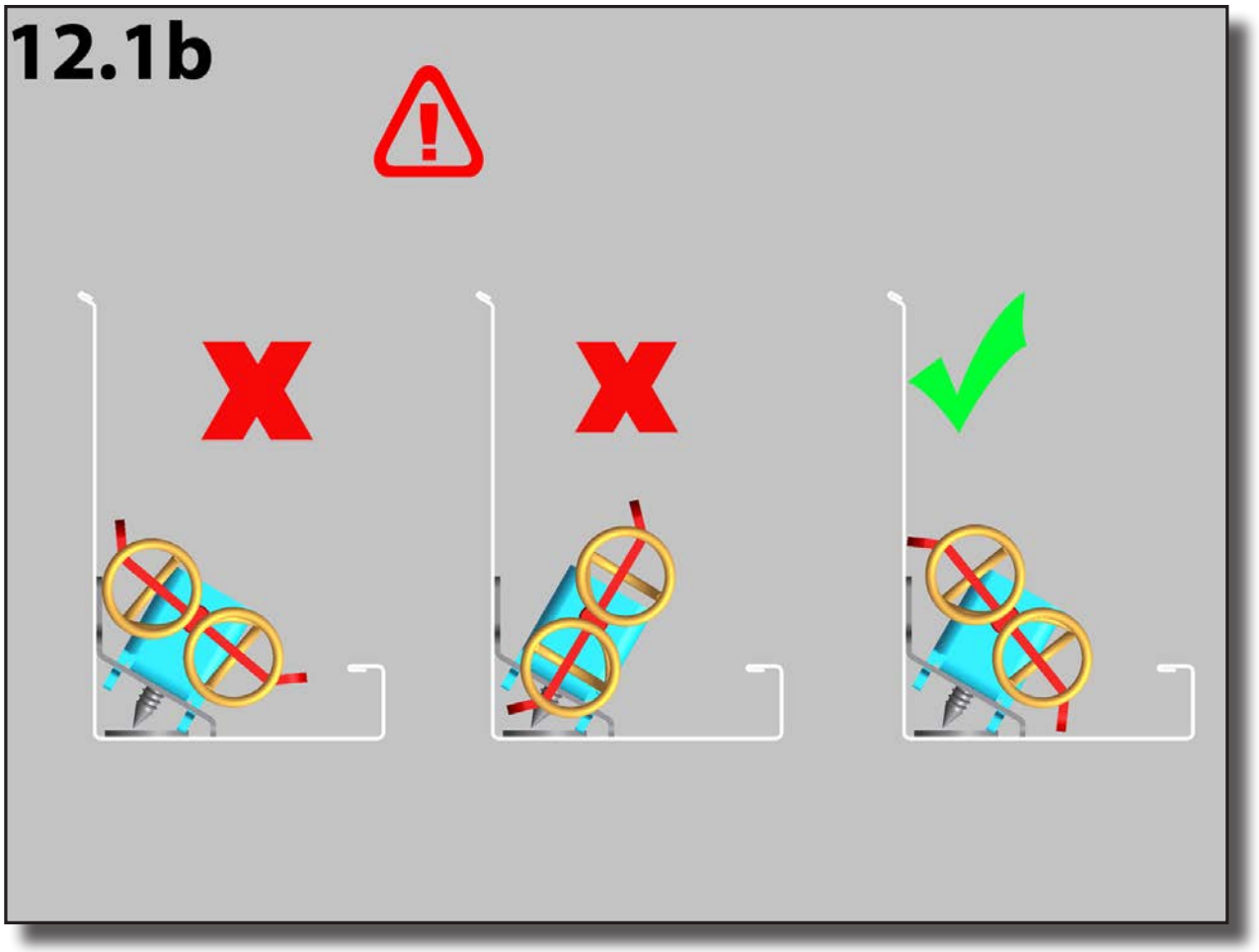
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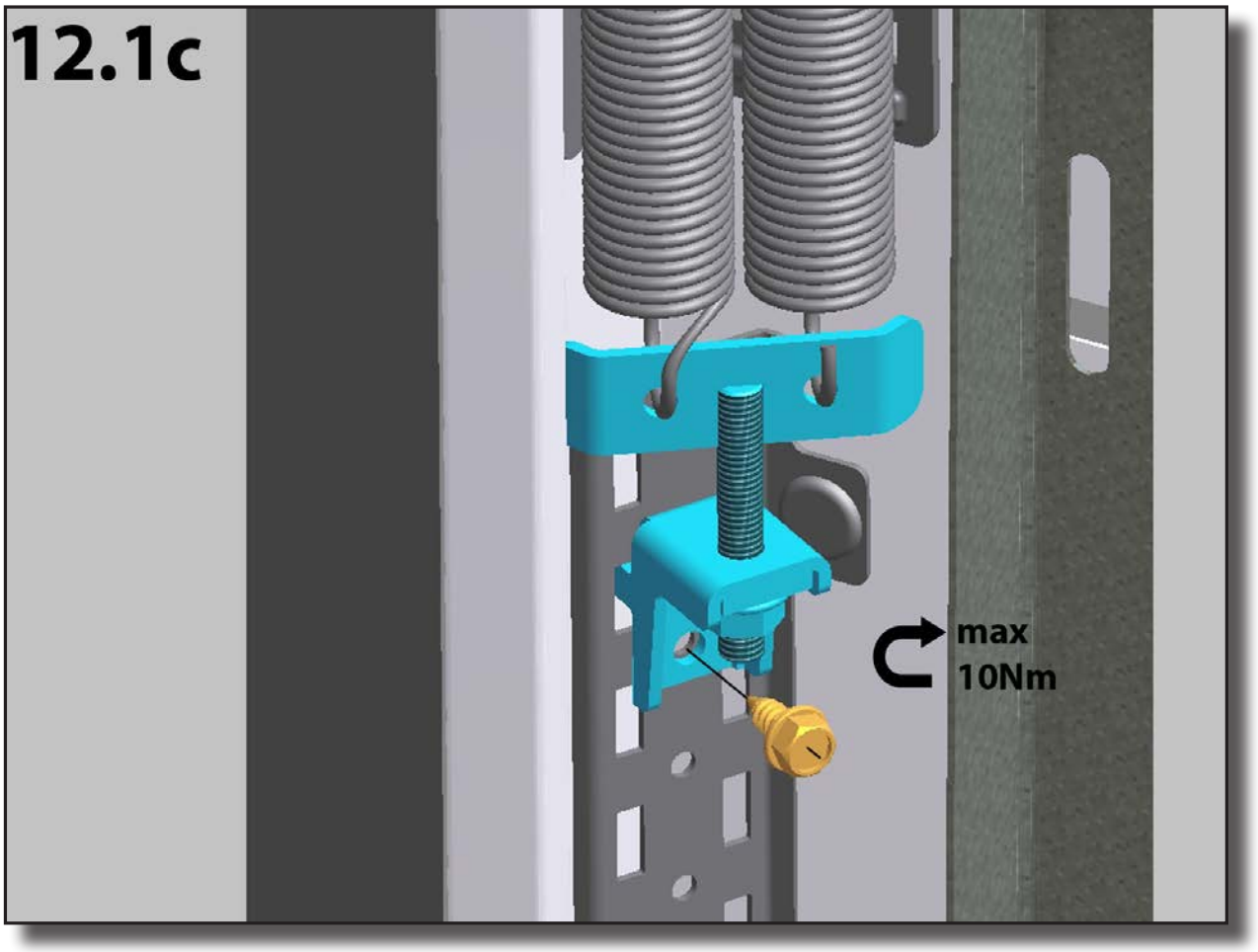
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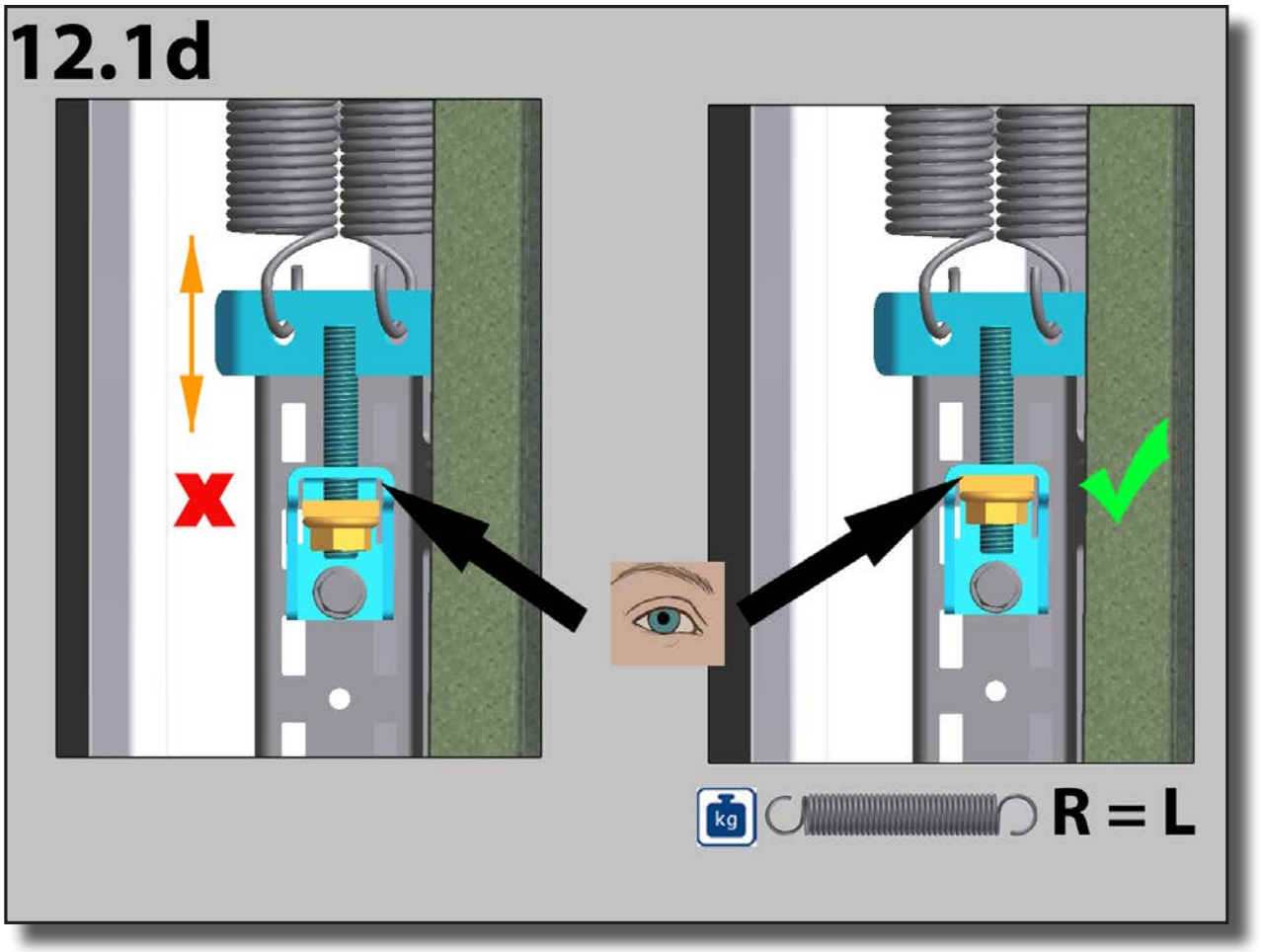
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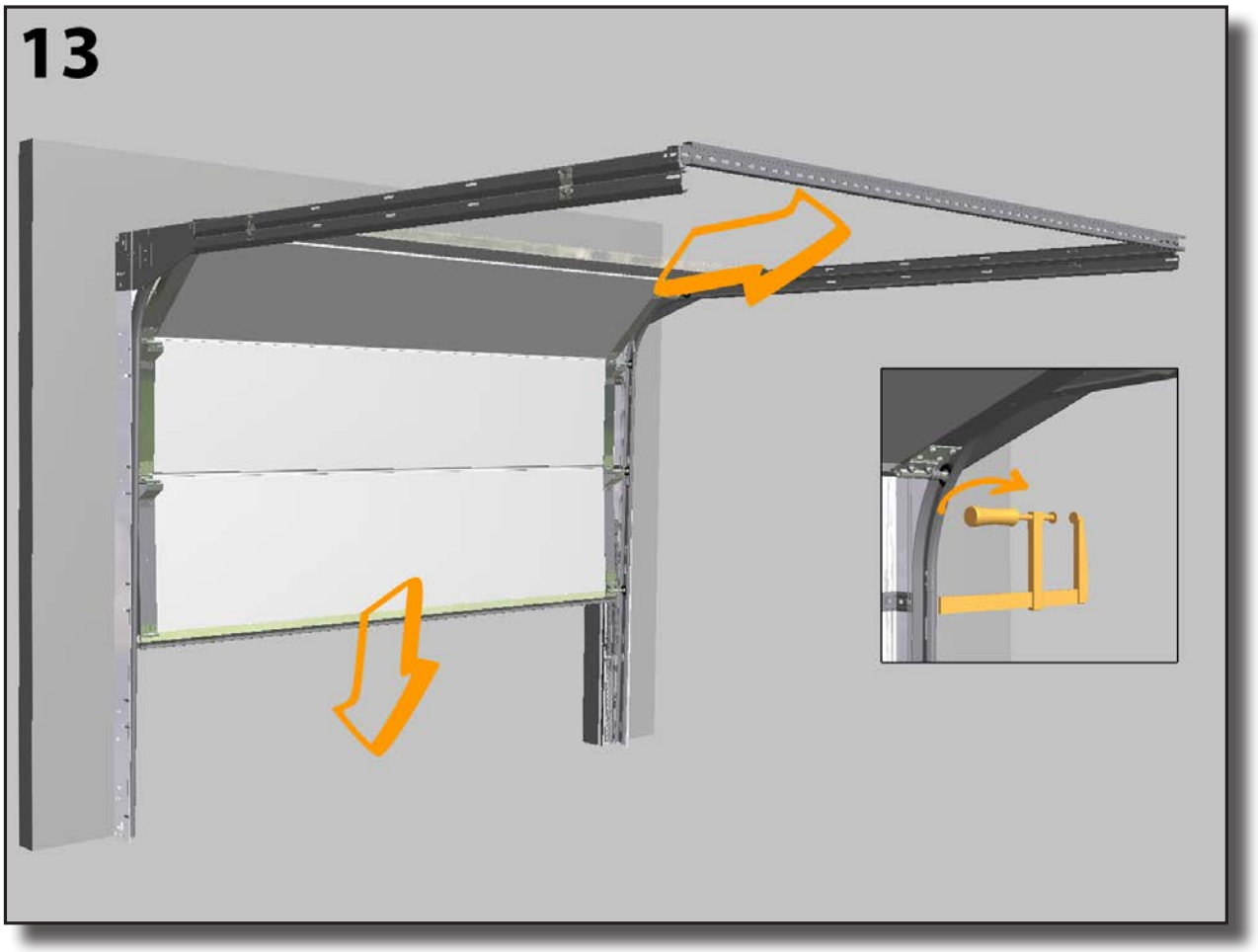
X
kg
R = L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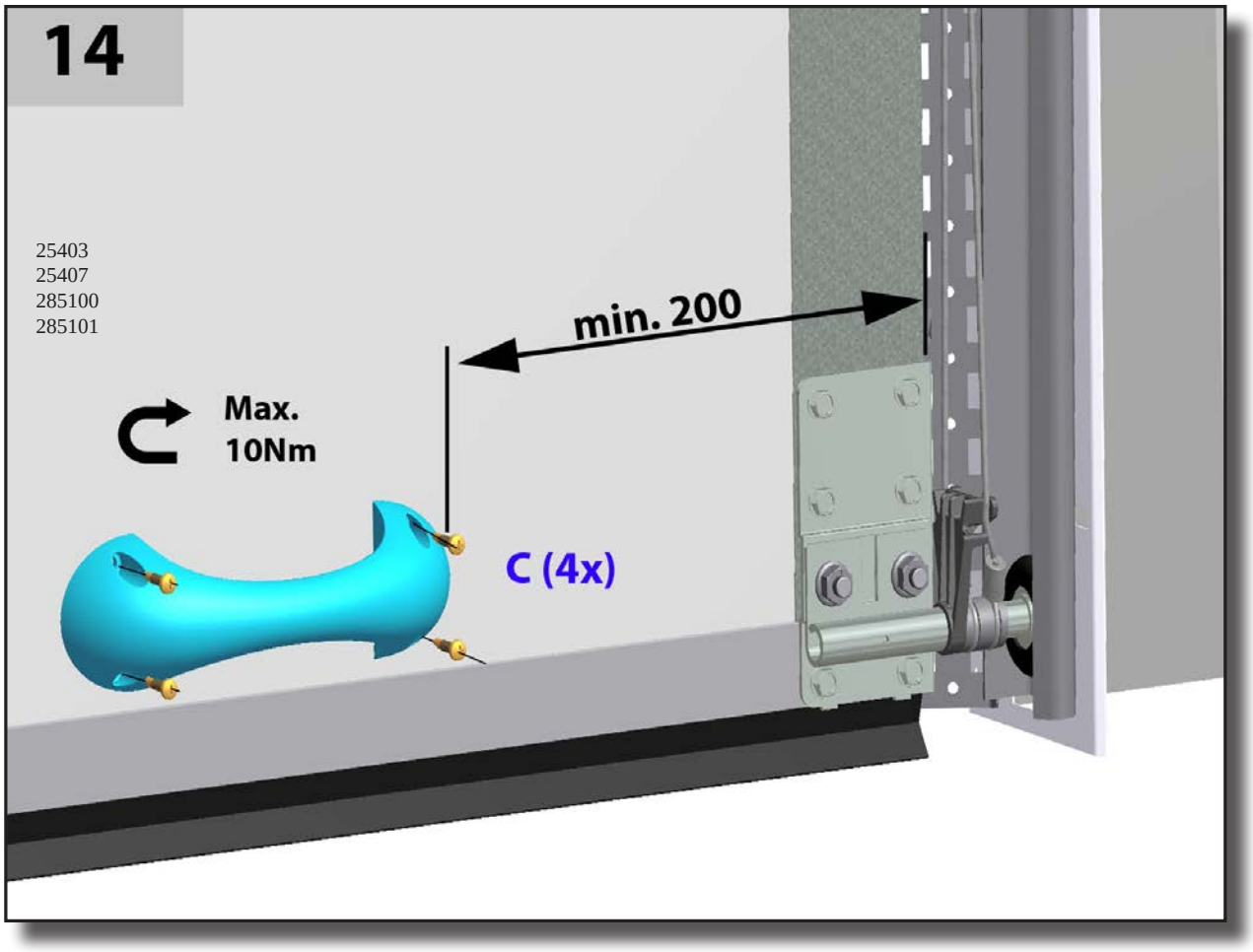
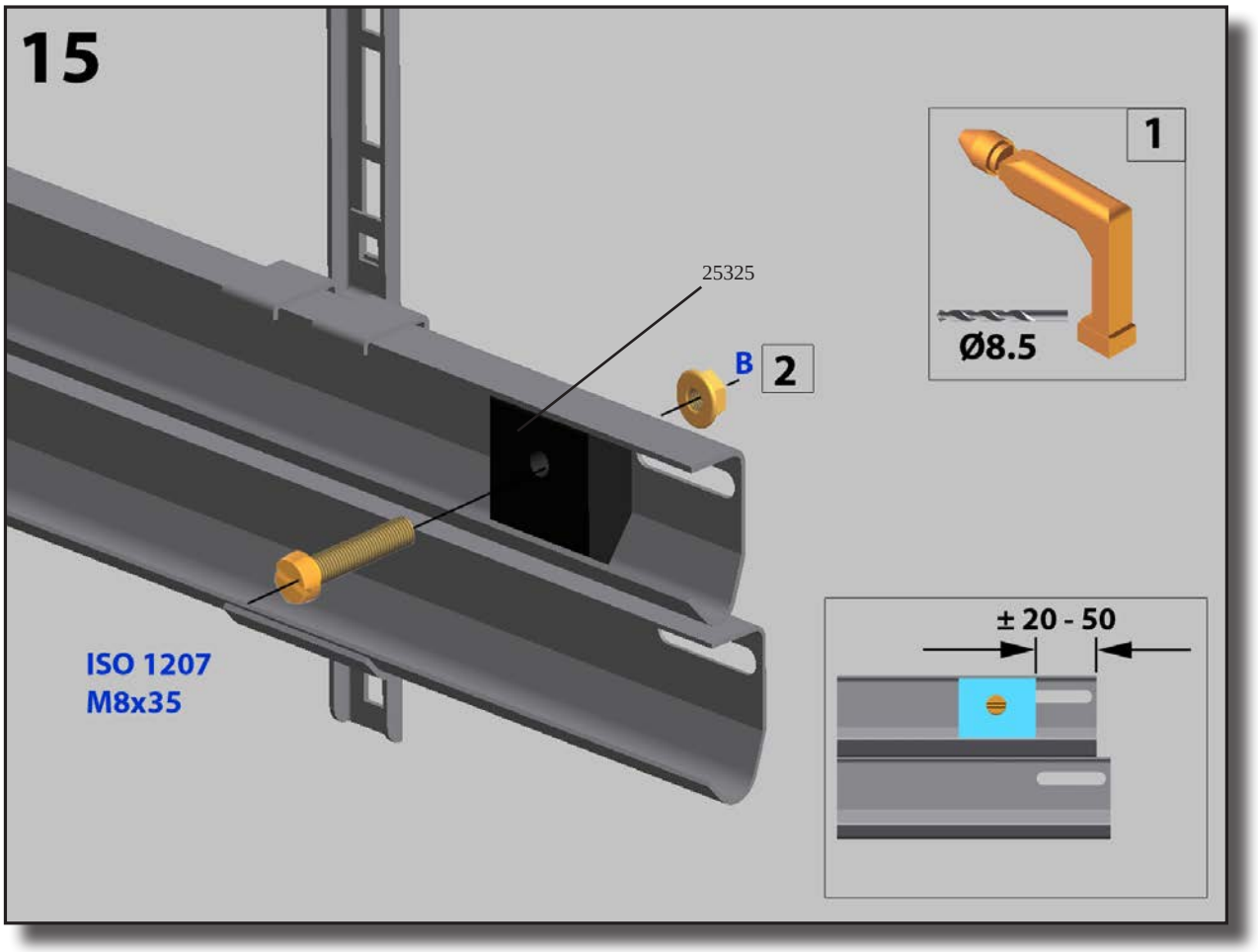

14
25403
25407
285100
285101
min. 200
Max.
10Nm
C (4x)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25325
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1
Ø8.5
± 20 - 50
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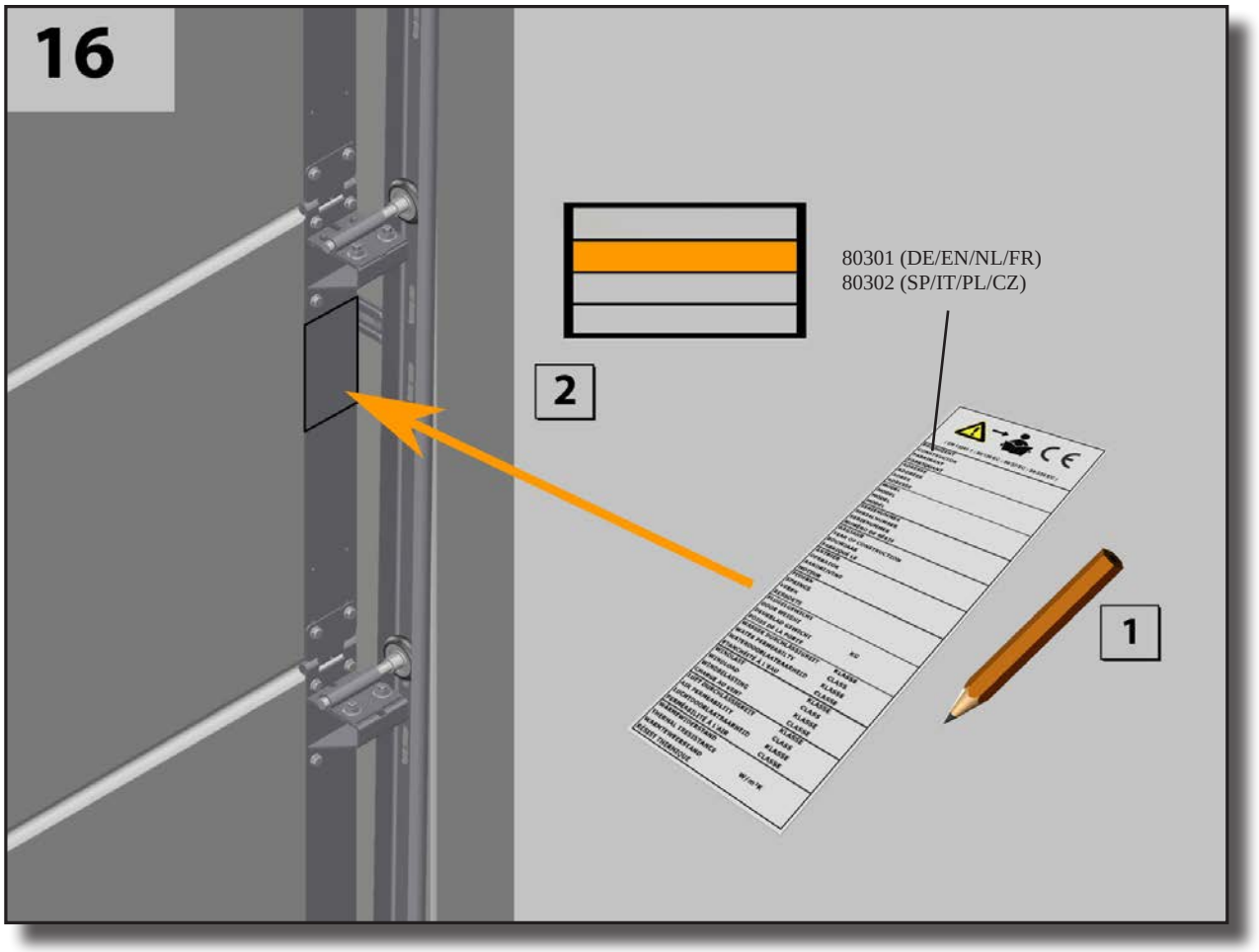
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80302 (SP/IT/PL/CZ)
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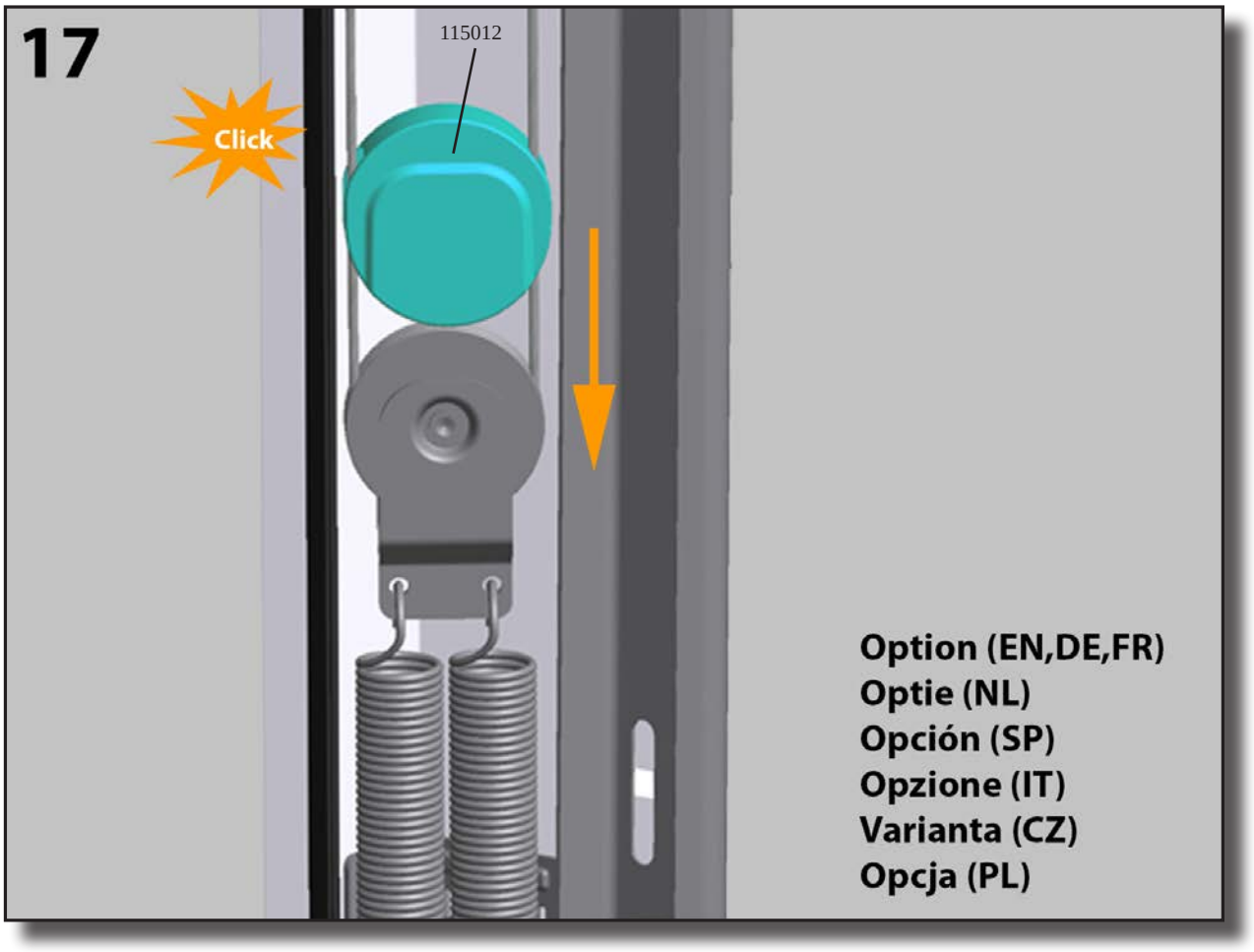
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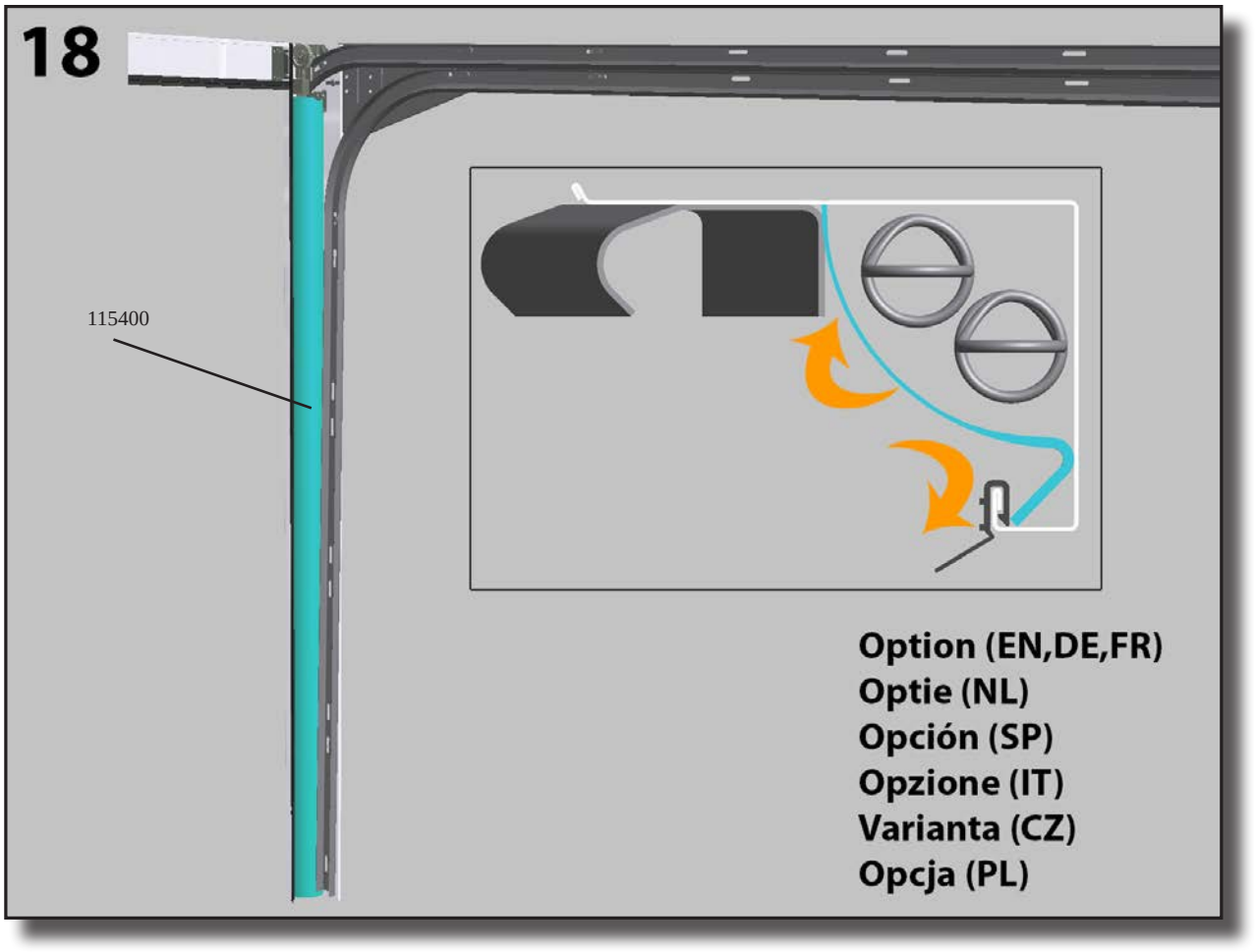
Option (EN,DE,FR)
Optie (NL)
Opción (SP)
Opzione (IT)
Varianta (CZ)
Opcja (PL)


18
115400
Option (EN,DE,FR)
Optie (NL)
Opción (SP)
Opzione (IT)
Varianta (CZ)
Opcja (PL)

10. Handover

Handover the following documents to the end user:
- This manual (assembly, maintenance and disassembly)
- User guide
- Service manual
- Declaration of conformity (in accordance with EN-13241-1)
- Inform the end user how to handle in case of malfunctions

10.1. First use

The first use of the garage door has to be carried out by an installer. After that the users can be instructed.

For more information refer to the user guide.

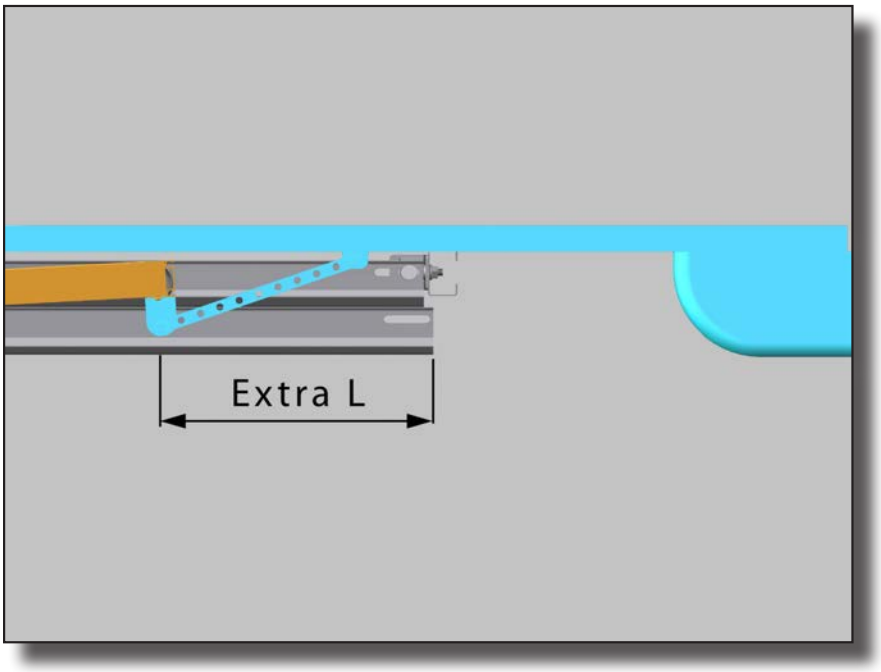
11 Electric operator (optional)

Mount the operator according the supplier's manual.

NOTE:
In case of power failure it should be possible to unlock the door using the emergency release from the operator .
The door leaf may only in that case, be operated with a handle.
If there is no second entrance to the garage, we recommend an external release lock (art 60011) be fitted.

Do not fit a pull cord, shoot bolt or lock to an electrically operated door .

Ensure thtat the horizontal tracks are long enough for the electrically operator, this is with reference to the operator drawbar (see below).
In the event that the tracks are too short, a longer horizontal track kit should be used.



11.1 Operator settings

Adjustment to the operator should be carried out in accordance with the operator manufacturers manual.
Please note that our hardware kits have been CE approved for use with the operators specified in our ITT report and enclosure B. Should a different operator be chosen, then the installer must carry out a peak force analysis in accordance with EN 12445 and EN 12453.

12 Disassembly

The door should be disassembled in the reverse sequence to the assembly manual.

12.1 Disposal

All parts of this garage door can be easily disposed of.
Please consult your local authorities on this matter

13 Maintenance

In accordance with EU standards, sectional overhead doors should be checked, from the first time of use, based on the indicated service by the installer.
This inspection service has to be recorded written.
This inspection service should be carried out by an approved installer cq company.

Directly after installing:

1) lubricate the tracks (advice: PTFE spray)	By Installer
2) lubricate bearings, and rollers (advice: PTFE spray)	By Installer
3) lubricate pins of the hinges from intermediate- and side-hinges (advice: PTFE spray)	By Installer
4) lubricate sealing rubbers (advice: special rubber grease or talcum powder	By Installer

After 3 months:

1) Re-tensioning springs (relaxation springs)	By Installer
2) Visual inspection	By Installer

Every 6 months or every 750 door cycles:

1) remove debris from the door and surroundings	By: user
2.lubricate the tracks (advice: PTFE spray)	By: user
3.lubricate bearings, shafts and rollers (advice PTFE spray)	By: user
4.lubricate pins of the hinges from intermediate- and side-hinges (advice: PTFE spray)	By: user
5.lubricate sealing rubbers (advice: special rubber grease or talcum powder)	By: user
6.clean the panels (advice: shampoo for car cleaning with water), do not use aggressive detergents	By: user
7.wax the panels (advice: car wax)	By: user

Every 12 months or every 1500 door cycles :

1 check the cables, the end connections ,bottom brackets on wear or damages	By Installer
2.check the balance of the door	By Installer
3.check the pulley (if present) for wear or damages	By Installer
4.check the rollers for wear and damages	By Installer
5.check the closing forces of the main closing edge	By Installer
6.check the suspension from the horizontal track to the ceiling	By Installer
7.check the weather strips for wear or damages	By Installer
8.check the bottom seal for wear or damages	By Installer
9.check the rubber seals on the top panel for wear of damage	By Installer

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